The Journal of the American Medical Association

Published under the Auspices of the Board of Trustees.

VOL. XXXIX. CHICAGO, ILLINOIS, AUGUST 9, 1902. No. 6.

Original Articles.

THE ADVANTAGES OF THE KNEE-CHEST POSTURE IN SOME OPERATIONS UPON THE VESICAL END OF THE URETERS.

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On May 20, 1901, I presented for the consideration of the Johns Hopkins Medical Society a brief paper[1] entitled "A New and Better Method of Opening and of Draining the Bladder in Women."

The method advocated consists in placing the patient in the knee-breast posture and then letting air into the bladder through a catheter or a speculum. If the posterior vaginal wall is now lifted up so as to expose the entire anterior vaginal wall from cervix to urethra, a suitably curved knife may be plunged through the vesico-vaginal septum into the air-distended bladder, and if the knife is sharpened on both edges the cut can easily be lengthened fore and aft from the cervix to the urethra, if it is desirable to make such a large incision. An artificial anemia of the bladder is induced by this posture and whatever blood escapes from the cut runs down into the capacious reservoir and in no way obscures the field of operation. A vesical calculus of any size can now be lifted out; the sides of the incision can be retracted and the vesical walls be exposed; any part of the vesical wall can be caught and drawn up into the incision into the vagina and excised and sutured, removing in this way papillomata and tumors or ulcerated patches. In short, this simple procedure puts the entire field of vesical surgery upon a new and different basis.

I wish to give this field a still further extention by reporting a most interesting case of ureteral calculi removed through the vesico-vaginal septum, the bladder being distended with air by keeping the patient in the knee-breast posture.

The patient, for whom I am indebted to the courtesy of Dr. T. Mortimer Lloyd, was 45 years of age, weighed 135 pounds and was in excellent general health. She had been four years married without pregnancy, as she had had peritonitis, for which both ovaries had been removed before marriage; after this operation the bladder was catheterized for a period of forty days. About six months after marriage she began having severe pains in the right side, radiating down the inside of the leg, without chills, chilly sensations, nausea or vomiting. After an attack of pain she suffered from a hematuria lasting for several days; the attacks, at first infrequent, gradually came oftener, and with the increasing frequency the pain extended between the attacks. Severe attacks were also brought on by over-exertion and any undue strain. There were no headaches, the hemoglobin was 70 per cent., and in all other respects outside the urinary organs she seemed to be a sound woman. The urine was alkaline, pale, cloudy, specific gravity 1008, amounting to 1000 c.c. in 24 hours. There were no casts, but there was a heavy purulent deposit. The infecting organism was the colon bacillus. In making a digital vaginal examination I detected a rounded eminence about 4 cm. behind the symphysis, extending at a slight angle from a point near the median line out laterally and up to the right fornix near the cervix uteri. This mass was about 4 cm. in length by about 1.5 cm. in diameter; it was not tender to pressure, was rather free and easily movable. The large rounded anterior extremity occupied about the position of the internal ureteral orifice. On handling and pressing upon the tumor a grating or creaking sensation not unlike crepitation was elicited. Behind this mass the continuation of the ureteral cord was distinctly felt. There was nothing abnormal on the opposite left side.

When I placed the patient in the knee-breast position and inspected the bladder directly through an open No. 10 cystoscope, the orifice of the left ureter was found a little reddened, while the right ureteral opening could not be found at all, but its place was occupied by a large rounded tumor, covered with the vesical mucosa about 3.5 by 2 to 2½ cm. and projecting about 2 cm. into the lumen of the bladder. This ovoid mass covered by the injected mucosa was sessile, broadest at the base, and when touched with the end of the speculum felt hard like a stone. The diagnosis was then clearly that of calculi impacted in the left ureter in its intra-vesical portion and extending upward back into the pelvis from a point just behind the closed ureteral orifice.

Operation.—April 22, 1902, the patient was anesthetized by means of gas followed by ether, and placed in the knee-breast position and the No. 10 speculum introduced; the bladder at once filled with air and the tumor projecting into the bladder was easily viewed by directing the end of the speculum toward the right side. I then took a pair of alligator scissors and, introducing them through the speculum, plunged one blade into the most prominent portion of the mass, when the stone was at once struck by the point of the scissors. A free incision was made in this way on the convex surface of the tumor, when the speculum was withdrawn and an attempt was made to extract the calculus from its bed in the incised ureter by means of a pair of small stone forceps; this effort failed, as the calculus was too large to be grasped by forceps introduced through the urethra.

The second step of the operation was then carried out. The perineum and posterior vaginal wall were lifted up,

1. Amer. Jour. Obst., No. 1, 1901.

exposing the anterior vaginal wall, through which a strongly curved knife was plunged in the median line at a point half way between the cervix and the internal urethral orifice. This opening into the bladder was then enlarged both up and down for about 4 cm. Any blood escaping from the edges of the incision trickled down into the bladder and gave no trouble. The right edge of the vesico-vaginal incision was then retracted toward the right side, so as to give a good exposure of the tumor projecting into the bladder close by (see Fig. 1); the incision made with the alligator forceps was now further lengthened around on to the posterior convexity, after which the finger was used to peel back the closely-applied tissues and bare a large ureteral calculus, which dropped into the vertex of the bladder before it could be caught and extracted; this was followed by some smaller calculi.

Fig. 1.—Showing the incision in the vesico-vaginal septum exposing the calculus on the ureter. The knife is being used to extend the incision made with the scissors through the vaginal speculum. The calculus is seen just ready to escape.

The stones were then simply lifted out of the bladder through the incision and the vesico-vaginal opening was at once easily and rapidly closed with silkworm gut interrupted sutures down to an opening left large enough to admit a mushroom self-retaining catheter. After three days the catheter was pulled out, when the hole closed at once, spontaneously, without any subsequent leakage. Four days after the operation she passed a small calculus, and five days later two more. Eleven days after the incision was made I examined her in the knee-breast posture, on account of a vesical tenesmus, and found a large cylindrical calculus lying in the vertex; withdrawing my open speculum I introduced a small stone forceps and caught and removed through the urethra the calculus shown in the figure; the last to escape was a small one on May 9. (See Fig. 2.)

At the final specular examination the area which had been occupied by the tumor was now found to be the seat of a large granulating mass with a deep cleft down its center, which might have easily been mistaken for a papilloma projecting into the bladder, looking like a bivalve with the edges of the shells loosely touching. Three weeks after the operation only a few pus cells were found, and after four weeks the pus, at first so abundant, had disappeared entirely. She is now, only about two months after the operation, in perfect health.

In closing my brief communication I might be pardoned if I reiterate the advantages which I claim for this method of treating most vesical and some ureteral

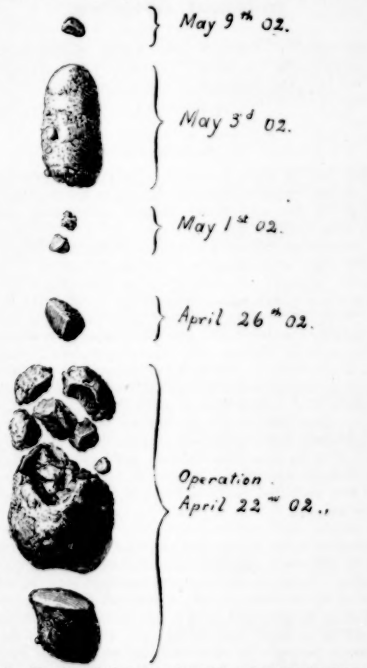

Fig. 2.—Showing all the ureteral calculi and giving the dates on which they were removed or passed.

cases in the knee-chest posture through an incision in the vesico-vaginal septum.

1. The opening into the bladder is made in a few seconds, and can be extended from cervix to urethra so as to include the entire base of the bladder.

2. In some cases after catheterizing the ureters, so as to mark their location, a wide lateral incision, or two incisions, can be made to secure a still wider exposure and render the remoter parts of the bladder more accessible.

3. The opening into the bladder is made more accessible by a strong retraction of the perineum with a Simm's speculum pulling in the direction of the sacrum.

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4. The anterior vesical wall can be reached best by inserting a retractor, 2.5 to 3 cm. in width, into the bladder through the incision and then using it to draw the incision down to the vaginal orifice, producing a displacement of 4 or 5 cm.

5. A beautiful means of inspection of all the parts of the bladder is afforded by means of a large cylindrical speculum about 12 cm. in length and about 3 in diameter, with a large handle similar to my proctoscopes.

6. For operations on the vertex and lateral vesical walls the assistant's hand may be of the utmost service in pushing the bladder up into the vaginal wound; in this way a tumor or an area of ulceration at the top of the bladder can often be removed with as much ease as a growth in the anterior vaginal wall.

The closure of the vesical wound is most easily and quickly effected; I commonly use silkworm-gut sutures, applying the first one in the center of the cut.

The operator is not troubled by any bleeding in any stage of the investigation, as the blood all runs down into the bladder.

Since writing the above I have removed a papilloma measuring about 4 by 3 cm. from the right wall of the bladder behind the pubic ramus. By traction on the base of the mass I drew the tumor with the adjacent mucosa well into the vagina through the incision in the septum. It was then easy to transfix the pedicle well down in the sound vesical tissues; to tie both ways and remove the mass. A similar smaller mass was removed from the right side of the urethral orifice by applying a simple catgut ligature.

THE TREATMENT OF SERPIGINOUS ULCER OF THE CORNEA.*

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NEWARK, N. J.

More than twenty years have now passed since I first observed that certain cases of serpiginous ulcer of the cornea, in which no further progress was noticed after they came into my hands, presented the features I am about to describe, and since then I have not seen a case in which they were present that did not heal under very simple treatment.

From the margin of the ulcer straight or nearly straight lines, broadest at the ulcer and gradually tapering, diverge in all directions somewhat obliquely, through the parenchyma of the deepest layer. They never give off branches. The further end of these diverging lines are connected by grayish intermediate striæ, of the same width throughout, and running at right angles to them. If present all around these intermediate linear opacities form a complete ring of the same form as the margin of the ulcer, but situated more deeply, and 3 or 4 mm. distant from it. Sometimes a smaller ring is seen between the outer ring and the margin of the ulcer. The cornea between the opaque linear opacities here described is cloudy but that outside of the outer ring is usually of normal transparency. An ulcer situated in the central part of the cornea with these striæ well developed, may be compared in appearance with a spider's web. In all of the cases of this kind seen by me the ulcer was at least 5 days old. I have never seen the picture develop in cases under treatment. The opaque lines gradually disappeared as the ulcer filled up. A few years ago, I made no microscopic examination of the exudation on the ulcer, but have done so recently, and while I have found the pneumococcus usually present in the progressive cases, I have been able to find but few in any one of the cases presenting the above-described features. I think I am justified in assuming that the ulcer in these cases has ceased to be progressive and that any treatment which involves further destruction of tissue, or the danger of anterior synechiæ is entirely unnecessary and should be dispensed with. I feel so sure of this that even in the cases in which blennorrhea of the sac was present I have done nothing more in the way of surgical procedures than to split the canaliculus. In these cases the symptoms of irido-cyclitis are usually not very severe, and the hypopion rarely fills more than the lower third of the anterior chamber. As I have already said, such cases always got well, and the only treatment required was warm fomentation with boric acid solution and instillations of a mydriatic. In all cases I was able to break up the posterior synechiæ by a 1 or 2 per cent. solution of sulphate of atropin, repeated often during the first day and less frequently after that. In most cases I have tried to expedite the complete cicatrization of the ulcer by gentle massage with a salve containing a small quantity of the yellow oxid of mercury.

The opaque striæ here described and regarded by me as an evidence of the arrest of progress, were first described, so far as I know, by Saemisch[1] in his famous chapter on the diseases of the cornea, and von Michel[2] in his description of the serpiginous ulcer of the cornea corroborates what Saemisch has said about them. Both of these authors describe the linear opacities as of common occurrence in such ulcers, but neither of these writers looks upon them as a sign that the ulcer has entered the retrogressive stage. I have seen these linear opacities so often that it seems exceedingly strange to me that men of such large experience as Fuchs,[3] Schirmer[4] and Vossius[5] have never seen the intermediary lines encircling the margin of the ulcer. I may mention here that I have been unable to find any reference to these linear opacities in the description of serpiginous ulcer in any American text-book. Whether or not the diverging opaque lines are due to folds in Descemet's membrane, as Schirmer seems to think, or are due to cell infiltration, as is held by Schmidt-Rimpler,[6] I do not know; their similarity in appearance to the opaque lines diverging from the corneal wound sometimes seen after cataract extraction, can not be denied, but I have never seen in such cases the ends of the lines connected by the intermediary linear opacities. To me the diverging linear opacities have always seemed to extend obliquely to the inner layer of the cornea, although Schirmer says that they are all in the same plane and in the deepest layer. I may say here, in passing, that I have seen precisely the same picture in cases of so-called abscess of the cornea, and in these cases also no further progress was noticed after the development of the linear opacities.

With regard to the treatment of the cases of serpiginous ulcer of the cornea in which the linear opacities above described were not present, I shall only say that I have given up Saemisch's incision, and rely almost entirely on cauterization by means of the galvano-cautery, for the arrest of the disease. Unless the ulcer is situated in the center and is more than 4 mm. in size, has a broad yellowish-white, raised arc or several small ones, and the symptoms of iridio-cyclitis are very severe (large hypopion), I delay the cauterization for a day or two, use compresses wet with a warm solution of boric acid continuously, instill a solution of atropin,

* Read at the Fifty-third Annual Meeting of the American Medical Association, in the Section on Ophthalmology, and approved for publication by the Executive Committee: Drs. Frank Allport, H. V. Würdemann and J. A. Lippincott.

and perhaps dust some finely pulverized iodoform on the ulcer once daily. Lately I have used, with apparent advantage, an ointment composed of bichlorid of mercury 1 part to 500-1000 parts of the sterilized vaselin. If the injection of the ocular conjunctiva is intense and the patient suffers great pain, I abstract blood from the temple, either by natural leeches or by the artificial leech. If I find micrococci in the advancing arc of the ulcer, or if the ulcer continues to spread under the treatment outlined, I use the galvano-cautery after having ascertained the extent of the ulcer by the instillation of fluorescin, and burn away the advancing arc as far as the greenish discoloration extends, and if the ulcer is very deep in any part, or the pupil has not dilated under the use of atropin or I think that the tension of the eye is above the normal, I perforate the deepest part of the floor of the ulcer at the same time. If, after a day or two, further advance of the yellowish arc is noticed I repeat the cauterization, but I have not been obliged to do this often since I destroy the corneal tissue as far as the greenish color, due to the fluorescin, extends. In cases in which the ulcer did not extend very deeply, but the irido-cyclitis was severe, I have sometimes made a paracentesis at the corneal margin with a veiw to reducing the intraocular tension and not for the purpose of evacuating the hypopion, which I regard as unimportant so far as the healing is concerned; but I do not think that these cases did as well as those in which I perforated with the galvano-cautery. The after-treatment is the same as in the milder cases already detailed. I have found that in cases of great pain due to the irido-cyclitis, relief has often followed the administration of salicylate of sodium and more recently the use of aspirin in 10-grain doses. Supporting treatment is, of course, required in nearly all cases. An examination of the urine should be made in all cases as soon as they come under observation, as I have found that in almost all of the cases in which the progress of the ulcer could not be arrested the patient either suffered from diabetes or nephritis. Treatment of these affections, if present, is of course required. In many of my bad cases I have noticed that the irido-cyclitis persisted in spite of all treatment, even while the ulcer was healing, and in some ended with closure of the pupil and secondary glaucoma, and in others cataract was developed. In nearly all of these cases the ulcer did not perforate, and no artificial opening was made, and I am under the impression that the artificial perforation, either by galvano-cautery or the knife, has a good effect not only on the ulcer but also on the irido-cyclitis, and I would recommend its performance in all cases in which the irido-cyclitis is at all severe.

With regard to the treatment of the blennorrhea of the sac which is so often present in these cases, I have nothing new to offer. I usually split the canaliculus, and if the secretion is very profuse syringe the sac with a solution of bichlorid of mercury, 1:1000, once or twice daily. Otherwise I simply have the patient press the contents out of the sac every few hours. In a few cases in which a phlegmon of the sac was present I incised the sac and packed it with iodoform. I have never found it necessary to extirpate the sac in such cases while under treatment of the ulcer, although others have highly recommended this procedure. Attention to the nose, if disease is present should, of course, not be neglected. The presence or absence of the pneumococci in cases of ulcerus serpens is, according to Nellhagen,[7] of great importance so far as treatment is concerned. According to this writer the cauterization and other active treatment is required only if they are present. In three cases of large ulcers with iritis and hypopion and in one, which was, moreover, complicated by blennorrhea of the sac, in which the pneumococci could not be found, the progress of the disease was arrested under warm application and atropin.

Dr. Paul Roemer,[8] in a very interesting article recently published, holds out the hope that we shall soon possess a serum of the pneumococci, which will arrest the progress of the ulcer, when injected subcutaneously and applied locally and thus do away with the cautery which must of necessity increase the loss of substance and thereby increase the size of the resulting cicatrix. That he may succeed in giving us a serum that will accomplish this, and thus become a great benefactor of mankind is certainly the devout wish of all who know how often our present means fail to arrest the disease before much harm is done.

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DISCUSSION.

DR. GEORGE E. DE SCHWEINITZ, Philadelphia—I would like to say that I consider it most unfortunate that we retain the name "serpiginous ulcer," as it gives us a wrong idea of what we are dealing with. So many ulcers are creeping that are not the serpiginous ulcer of Saemisch. I myself have not been able to see, as often as Dr. Kipp, the interesting distinction he makes between the ulcer with the arc of propagation, and the one with these radiating lines. It has been my practice to make my treatment correspond to the bacteriologic investigation. If the pneumococcus is shown to be present, I always use the actual cautery. In the vast majority of cases one gets a mixed infection and in a certain number of infected ulcers, a fairly pure culture of streptococcus. In the absence of virulent infection I use scraping, bichlorid, tincture of iodin and carbolic acid. I have also great faith in the use of iodoform in the manner Dr. Kipp has spoken of, placing it on the ulcer after scraping it. I have treated the sac just as Dr. Kipp has, slitting the canaliculus and washing it out with a strong solution of protargol. It has seemed to me that in cases where there is not a purulent disease of the sac some good has resulted by incising the palpebral portion of the lachrymal gland. I have done it a number of times with good results. In all the cases there was enlargement and swelling of the gland and it seemed to me that it lessened the amount of secretion, though this might perhaps have been a coincidence. I have incised the sac in some cases and it seemed to me with good results.

While I would listen with great regard to any recommendation made by Dr. Kipp, it seems to me it would be folly to treat an infected ulcer of the cornea by so mild and conservative a method as he advocates. I do not see how you can stop an infectious process except by getting rid of the source of infection. It must be remembered, too, in the use of flourescin, that while it will color the ulcer, there is also a portion beyond that will also be colored: I do not know whether Dr. Kipp goes that far with his burning or not. I would say, then, that where I have pneumococcus infection I curette and use the cautery, associated with iodoform, and in other cases, where the infection is not so virulent, I use tincture of iodin or carbolic acid.

DR. N. L. WILSON, Elizabeth, N. J.—I have had some experience with this form of ulcer that was first pointed out to me

about two years ago by Dr. Kipp, and from Dr. de Schweinitz's remarks it seems to me that he did not exactly catch the doctor's idea. Dr. Kipp impressed upon my mind that when you see these radiating striæ connected at their ends by cross striæ you can make up your mind that the infection will extend no further and he therefore feels safe in treating them in a mild manner. My experience enables me to fully endorse what the doctor has said. The connecting lines are very fine and can only be seen by a good oblique illumination and a magnifying glass.

Dr. Edward Jackson, Denver—I would like to emphasize Dr. Kipp's view of the benefit of opening the anterior chamber, that it is by lessening intra-ocular tension rather than by getting rid of the material which escapes. In line with his observation that opening with the cautery is more effective than opening with the knife, I would say that I have noticed a good many times that it was necessary to reopen the original incision with a probe every twelve to twenty-four hours for some days. When allowed to close, as it tends to do with the exudate in the anterior chamber, the eye would get worse within twelve hours.

In the last four or five years I have used, with, I think, very decided benefit, an application that has not been mentioned yet—nitric acid. I have used it in what appeared to be a pure pneumococcus infection; and in those cases I think its effect was quite as marked and the improvement as rapid as in any cases in which I applied it. I use it by dipping a little piece of wood, like a match stick, into the diluted acid, from 20 to 50 per cent., diluted with distilled water, getting rid of any drop or excess on the end of the stick, and then pressing it into the area of softened tissue.

Dr. Leartus Connor, Detroit—A remedy for the destruction of infectious germs has recently been presented to the profession by Dr. Novey of Ann Arbor, Mich., which may be used in these cases. In his laboratory experiments he found that solutions of acetozone as weak as 1:10,000 destroyed the gonococcus in a few moments and the most malignant of the other germs that we have to deal with. I have employed it in some cases of this kind and in cases of infected injury to the eye with, it seemed to me, great advantage. Without saying that, clinically, it will always act in that manner, it has seemed to do so in these cases. In solution of 1:200 it causes but little more irritation than the half-grain sulphate of zinc solution. As far as I know it has no injurious effect on normal tissue and I have put it into my own eye without any unpleasant effect. In the small experience I have had with its use so far I would say that it seems to me an agent to be depended on and worthy of extended clinical study.

Prof. Haab, Zurich—I would like to say that I prefer to destroy the microbes of infection directly by using nitric or carbolic acid pure. I have had the best results in this way. Iodoform may be useful in the anterior chamber in some cases, but generally I prefer not to use it. Local destruction by use of the pure acid is preferable.

Dr. H. G. Sherman, Cleveland—In using carbolic acid do you neutralize it with absolute alcohol?

Prof. Haab—Of course, only a small quantity is taken on the tip of the probe, or a small piece of wood, and it applied only to the part most infiltrated you have no serious destruction of the tissue and can do it well without need of neutralizing. It is the best means of disinfecting these ulcers that I know.

Dr. R. L. Randolph, Baltimore—I would like to know what local anesthetic is used. I have long given preference to holocain in these cases. It would seem to me that the action of cocain tends to facilitate infection as we all know it causes a certain amount of exfoliation of the epithelium and this effect is seen in parts considerably distant from the ulcer. One would suppose that the proper thing to use would be an anesthetic which did not possess this property, such, for instance, as holocain. I not only use it at the time of operation but for some days afterwards. I agree with Professor Haab as to the value of the pure acid and that has been my routine treatment for some time. Carbolic acid has anesthetic properties and while a local anesthetic is necessary before the application of the acid, the anesthesia need not be as profound as when other irritating applications—i. e., nitric acid, tinct. iodin or the galvano-cautery—are employed. I think holocain is of value throughout the treatment as it produces distinct pericorneal vascularization and in this way helps to carry off the products of inflammation.

Dr. S. D. Risley, Philadelphia—I would like also to emphasize the value of holocain as compared with cocain as a local anesthetic in these cases and I am glad to have heard mentioned the method of using carbolic acid and iodin. I use a double-strength tincture of iodin, applying it on a fine-pointed probe, with a little cotton wool about it, and moving it around lightly over every portion of the infected area. There is an extraordinary power of dispersion or penetration in iodin and it is my favorite application. It has been many years since I have found it necessary to use the actual cautery in these cases. Certainly of next, or perhaps equal, value is pure carbolic acid. It has secondary anesthetic properties and I have never seen any unpleasant after-effects from its use. Both iodin and carbolic acid cause acute pain at first so that their application should follow the instillation of holocain.

Dr. W. H. Wilder, Chicago—I also would like to testify to the value of tincture of iodin in these cases and am glad that Dr. Risley laid emphasis on it. I have been able to dispense with the cautery in many instances. Swanzey proposed the use of applications of absolute alcohol in superficial and hepatic ulcers of the cornea and the method has in my hands proven to be of considerable value, but I think one gets all the benefits of this treatment with the tincture of iodin, which can be thoroughly rubbed into the infected area. One point in connection with the use of fluorescin: After its application we quickly get the outlines of the ulcer well defined and it is important to begin the operative procedure immediately, as the area around the ulcer soon takes up the stain, and we then lose the sharp definition that is desired.

Dr. J. E. Minney, Topeka—I desire to say that I have had some personal experience with the use of carbolic acid in these ulcers of the cornea and, unless there is a deadened area, it is just like sticking a red-hot needle into the flesh and I think a local anesthetic should be used before its application. It strikes me that we are all speaking of local applications only, and perhaps in the part of the country you gentlemen come from you do not need constitutional treatment, but in our part of the country we have to use quinin and we find that 2-gr. doses every hour are very beneficial. I use the pure carbolic acid as a local application, administer quinin, and advise that the patient be well fed and cared for.

Dr. L. H. Taylor, Wilkesbarre, Pa.—We, of course, all have our own favorite methods for treating these cases. I have used the galvano-cautery very frequently and have come to rely on it more and more. I have also occasionally employed a strong solution of nitrate of silver after scraping the ulcer, but the cautery has given me the most satisfaction.

Dr. Harry Friedenwald, Baltimore—I have been rather surprised to hear the tincture of iodin so well spoken of in the treatment of infected ulcers. For my part I have been very much disappointed in its use, even of the strong tincture, in infected ulcers. While I think it invaluable in dendritic and other superficial ulcers, as I said several years ago,[1] I have entirely abandoned its use in infected ulcers. I am very much afraid that some of the difference of opinion expressed is due, as one of the speakers has said, to the fact that we use the name "serpiginous ulcer" to cover different diseases. In my experience the tincture of iodin is only useful in ring ulcers, in dendritic and in other superficial ulcers of the herpetic variety.

Dr. J. L. Hiers, Savannah—The local action of iodin, as is well known, is caustic and antiseptic. It is, likewise, a local stimulant and mild counter-irritant, promoting the absorption of inflammatory products.

Relevant to its application, the eye should be first cocainized to complete anesthesia. This having been accomplished, intro-

1. Trans. Am. Oph. Soc., vol. ix, p. 129.

duce an eye speculum and scrape the ulcer thoroughly with a spud or equally convenient instrument. Dry the part well, then, with just a few fibers of absorbent cotton twisted tightly around an ordinary wooden toothpick, which has been previously immersed in the undiluted medicant, apply the iodin thoroughly to the ulcer. Care should be taken, however, to dry off the excess, and none of the drug should be allowed to come in direct contact with the healthy part of the eye. The organ should be subsequently bathed with sterilized water or boric acid solution, and treated as a recent traumatism of the cornea.

While at first it was my custom to resort to iodin in all simulating conditions, an experience of six years has led me to the conclusion that its special adaptability is to ulcers that are indolent in type. In serpiginous ulcers it lessens rather than increases scar tissue. For them, it seems to possess a peculiar affinity; over them, to exert a remarkable influence. The after-treatment should vary according to the indications of each individual case.

DR. ALLEN GREENWOOD, Boston—I desire to add my testimony to the value of iodin. I think it is one of the most valuable methods of treating these spreading ulcers, and. I also want to endorse the use of iodoform. I do not think anything else will take its place in these ulcers. The opening of the anterior chamber is a useful method in ulcers following gonococcus infection. In the treatment of the serpiginous ulcer I would add the constitutional use of mercury.

DR. KIPP—I did not expect to hear much at this time confirmatory of the opinion that the features described shew that the ulcer has reached the retrogressive stage. You find the lines diverging from the margin in all directions, but it is not so frequent that you see the lines that connect the ends. If the ulcer is in the center it gives the appearance of the spider's web, but if at the periphery the lines extend toward the center only and have other lines running between them. It is in this particular form that I think the progress has stopped and it is useless to use the cautery or carbolic acid. Carbolic acid was first used by Dr. Williams many years ago and in the same manner as mentioned here. I have used all the remedies named except nitric acid, and must say that I give the preference to the actual cautery. The advancing line is always undermined and you can bring your cautery underneath it. I use the cautery at a dark-red heat and limit its application to the advancing portion. With regard to local anesthetics, I have used holocain since it was first introduced by Hirschberg, but have found it very difficult to keep a solution in a good condition; it becomes opaque, a sediment forms and the solution changes to a pinkish color. In regard to the use of fluorescin, there appeared recently an article in the *Ophthalmic Review* by Benson, who has made a number of experiments with the use of it in connection with local anesthetics, and he has showed that after the use of a local anesthetic the ulcer discolored to a far greater extent than when the application was made before the use of the anesthetic, and this may account for my success, as I have burned away all of the raised are as far as the greenish color extended. With regard to the use of supporting treatment, these ulcers occur nearly always in old broken-down people and, of, course, some supporting measures are indicated.

DR. JOHN E. WEEKS, New York—I would like to ask Dr. Kipp what he considers the indication for abstraction of blood.

DR. KIPP—For the purpose of depletion and the relief of pain. I have seen many cases of iritis in which I could not dilate the pupil until I had abstracted blood in this way.

Handy Method of Disinfection of Sputa.—Gertler writes from Cracow to the *Wiener Med. Presse*, No. 11, that the following powder is excellent for scattering in cuspidors. It is harmless, kills all the microbes in sputa, deodorizes and rolls up into conveniently removed bunches. It is made by adding 15 parts of a saturated aqueous solution of copper sulphate to 100 parts of pulverized peat. After the mixture is dry, 2 per cent. formalin is added and enough aromatic essence to disguise the odor of the formalin. The whole is then mixed under pressure for an hour, when it is ready for use.

THE NATURE AND TREATMENT OF PTERYGIA.*

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DALLAS, TEXAS.

Before proceeding to a discussion of the treatment of pterygium it would be well to consider the nature of the growth and the circumstances under which it develops. So eminent an authority as Prof. Fuchs speaks of pterygium as a growth peculiar to those past middle life, and while this may be true of Vienna and the country surrounding that city, it certainly is not true of the southwestern part of the United States, where I have been practicing ophthalmology for a number of years.

In this region, where we have the combination of summer heat from April to November, with a dry atmosphere agitated by high winds and impregnated with alkaline dust, we will find the ideal conditions for the development of pterygia. Consequently, it is not at all infrequent to see boys in that country afflicted with pterygia of small size, while among those who are older we see pterygia growing from both the inner and the outer canthus until they practically cover the entire cornea, reducing the vision to the dim perception of large objects. This tendency to pterygium is by no means the same throughout the region of the southwest, but is found especially in those districts where the conditions mentioned above are so abundantly supplied. In the southwest, embracing that territory lying between the Mississippi river and the Pacific ocean and between the Gulf of Mexico and the Mexican Republic on the south and the continuation of Mason and Dixon's line on the north, we have a vast variety of climates and of soils. And it has been my observation that patients coming from the still, warm, humid regions of the south are not so frequently nor so seriously affected with pterygium as are those coming from the warm, dry, windy and dusty regions of the same latitude. Heat, a dry atmosphere and high winds will cause the maximum degree of evaporation of moisture from any surface, and the combined influence will be felt upon any exposed mucous membrane. And when these factors are exerted almost continuously on the structures in the palpebral opening for many years and are reinforced by enormous quantities of alkaline dust, which clings to the eyeball about the sclero-corneal junction and the inner canthus and the outer canthus, and is not wiped away by the motion of the lids, but rather heaped up in the axis of the palpebral fissure, and when the evaporation of the tears is so rapid that they do not accumulate in sufficient quantity to wash away the foreign particles accumulating on the globe, then we have conditions most favorable for the development of pterygia, as experience has shown. And not only do we observe the difference in liability to pterygia among the inhabitants of different localities, but in any given locality pterygia will be far more frequent or much more severe among those who are exposed to the irritating effects of direct sunlight and wind and dust. And thus I find that I have many more cases of pterygia among ranchmen and farmers than I do among women and men of sedentary occupations, although the latter class will apply much earlier for relief on cosmetic grounds.

* Read at the Fifty-third Annual Meeting of the American Medical Association, in the Section on Ophthalmology, and approved for publication by the Executive Committee: Drs. Frank Allport, H. V. Würdemann and J. A. Lippincott.

I would conclude, then, from my experience, that pterygia are produced by the prolonged irritating action of several factors, chief among which are, heat, a dry atmosphere, high winds, exposure to sunlight and an abundance of dust, especially if alkaline in character. Then, with these facts of causation before us, we must recognize that an important part of the post-operative treatment will consist in the removal, as far as possible, of those conditions which favor the development of the growth in the beginning. And we must recognize that a pterygium that would prove harmless in New York or Vienna, might prove distinctly injurious on the plains of western Texas or New Mexico. We must also recognize that a method of operation which would give satisfactory results in New York or Vienna might not succeed to the same degree on the plains of the far southwest.

All forms of simple abscission requiring a break in the conjunctiva along the axis of the palpebral fissure must be more or less unsatisfactory, because this will demand one or more sutures, bringing the divided parts in apposition, and the line of union is apt to be associated with some thickening of the tissues and seldom is altogether as smooth as the normal conjuctiva, and the irritation consequent upon these conditions will serve to invite the neighboring subconjunctival vessels and thus cause a return of the growth in some cases. In my own experience, among a people who are afflicted with pterygium as frequently as the inhabitants of any part

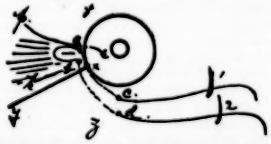

Fig. 1.—Showing needles 1 and 2 which enter the neck of the pterygium pte. at *a* and *b* and then pass beneath the loosened lower segment of conjunctiva *x y z*, and then emerge at *c* and *d* below the cornea.

of the world, I must say that my results have been far more satisfactory with the method of transplantation than with any method of simple abscission. But the exact way in which this transplantation is accomplished has much to do with the success of the operation, and after a very thorough trial of the various procedures along this line I have finally adopted a plan which has never disappointed me a solitary time within the last few years. It is a modification of the old operation originally devised by Desmarre, but it differs in some very important features from Desmarre's operation, and these differences constitute the most important elements of its value.

The details of the operation are the following: 1. Grasp completely the neck of the pterygium with strong but narrow fixation forceps. 2. Pass a Graefe knife through the constriction and as close to the globe as possible, and then with the cutting edge turned toward the cornea shave off every particle of the growth smoothly from the cornea. 3. With the fixation forceps still hold the pterygium, and with slender, straight scissors divide the conjunctiva and subconjunctival tissue along the lower margin of the pterygium, commencing at its neck and extending toward the canthus, a distance of one-fourth to one-half of an inch. 4. Still hold the pterygium with the forceps and separate the body of the growth from the sclera with any small non-cutting instrument. 5. Now separate well from the sclera the conjunctiva lying below the oblique incision made with the scissors. 6. Take black silk thread armed at each end with small curved needles and carry both of these needles through the apex of the pterygium from without inwards and separated from each other by a sufficient amount of the growth to secure a firm hold. 7. Then carry these needles downward beneath the loosened conjunctiva lying below the oblique incision made by the scissors. The needles, after passing in parallel directions beneath the loosened lower segment of the conjunctiva until they reach the region of the lower fornix, should then emerge from beneath the conjunctiva at a distance of about one-eighth to one-fourth of an inch from each other. 8. Now, with the forceps lift up the loosened lower segment of conjunctiva and gently exert traction upon the free ends of the threads, which have emerged from below, and the pterygium will glide beneath the loosened lower segment of the conjunctiva, and the threads may then be tightened and tied and the surplus portions of thread cut off, leaving enough to facilitate the removal of the threads after proper union has occurred.

It is very important that no incision should be made along the upper border of the pterygium, because it would gap and leave a denuded space when downward traction is made upon the pterygium. On the contrary, the elasticity of the conjunctiva is such that when this downward traction is exerted upon the head of the

Fig. 2.—Showing pterygium pte. fixed by a single stitch *c d* beneath the loosened lower segment of conjunctiva *x y z*, while the former site of the growth *p x r* is covered by the normal, smooth, stretched and thinned out conjunctiva *p x r*.

pterygium the conjunctiva becomes thinned out and smoothly applied to the sclera corresponding to the former site of the body of the growth and the margin of the conjunctiva coincides accurately with the sclerocorneal junction. Thus, when the operation is completed and the speculum removed, no stitch is seen, because it is hidden by the lower lid; the only denuded area is on the cornea. The former site of the body of the pterygium is covered by a thin and comparatively non-vascular conjunctiva, and what blood vessels remain are directed downward and not horizontally, and hence do not tend to encroach again upon the cornea. In fact, the whole vascular activity is concentrated beneath the lower lid, where it is not only removed from view, but protected from the irritating influences of dust and exposure, and the process of atrophy naturally and surely follows. In the meantime, the corneal wound heals quickly and the thin conjunctival tissue becomes closely adherent to the sclera in the palpebral opening. After a few days the single stitch can be removed and the old pterygium will be found firmly adherent to the sclera and hidden beneath the loosened lower segment of conjunctiva. If the head of the pterygium is very large it may be cut off before the growth is drawn down beneath the loosened lower segment of the conjunctiva.

The general direction of the traction threads is vertical, but generally it is best to incline them in such a

way that they will emerge from that part of the conjunctiva which lies below the cornea. This may be necessary many times in order that all of the denuded sclera may be completely covered by smooth conjunctiva, and if the conjunctiva should slightly overlap the cornea at any point it can easily be trimmed smoothly away without interfering with the desired result. If the head of the growth is very large so that it covers something like a third of the cornea, and if the body is also very thick and fleshy, it may be best to dissect away the head from the cornea with a sharp knife and then remove with scissors the head and a part of the subconjunctival portion of the body of the growth and then proceed with the rest of the pterygium according to the method already described.

DISCUSSION.

DR. G. C. SAVAGE, Nashville, Tenn.—I want to say that I believe ophthalmology, not only of America, but of the world, will acknowledge its indebtedness to Dr. McReynolds for devising this operation. I believe that Fuchs was wrong as to the etiology of pterygia. I do not believe that a pinguecula has ever been transformed into pterygium, or ever will be. I think Dr. McReynolds is correct in his statement that these growths are found more numerously in southern countries that are dry and windy than anywhere else. Perhaps railroads have made pterygia more numerous in the north than they used to be. I believe that practically all of these growths are due to foreign bodies embedded in the cornea, these being so small as not to be noticed at the time and later a process of ulceration is set up with the object of dislodging the foreign body. The process of formation of pterygium is this: The foreign body gets into the eye and Nature's method of attempting its removal is to excite a flow of tears and this flow of tears serves to carry the foreign body across the globe to the inner margin of the cornea. It irritates as it moves and the patient involuntarily closes the eyelids and embeds it at the nasal margin of the cornea. The next step is a process of ulceration which destroys the corneal epithelium, and the conjunctiva becomes swollen, loses its epithelium, and the limbus, overlapping the denuded cornea, becomes adherent to the base of the ulcer. This adhesion formed, the pterygium is sure to develop. The fact that we can pass the strabismus hook beneath the pterygium is evidence that it is a conjunctival growth caused by the ulcerative process which is a little within the corneal margin.

Dr. McReynolds is correct in saying that it occurs much more frequently in those who are exposed than in professional men and in women. I very seldom operate on a case in a woman and then only in those women who have been exposed in outdoor work. The men who are exposed in the sandy countries are the most frequent sufferers from pterygia. A small cinder, a piece of steel, or any other small body, may be the starting-point.

Dr. McReynolds astonished me a little by his delay in publishing his operation. When a man gets a good thing he is always in danger of having it stolen from him. I knew of this operation three years ago, for the Doctor was kind enough, when on a visit to his father, to come by Nashville to call on me, and told me about it. He then wanted to know whether or not I thought he could claim this as a new operation. So far as I knew it was new, and I knew at once that it was a good one. I have done the McReynolds' pterygium operation more than one hundred times and have had only 2 per cent. of failures. With my own operation and with that of others, I had a great many more failures than that. I prefer to follow Prince in pulling the head off with the hook instead of cutting it off. I want to point out the only danger attending the operation (illustrating on the board). When the pouch is made below, if the needles are carried too far beneath the cornea you may make some of the transposed conjunctiva overlap the margin of the cornea and thus set up another pterygium.

DR. CASEY WOOD, Chicago—The operation was introduced to me some years ago by Dr. McReynolds and I want to endorse what Dr. Savage has said in regard to it. It has been the most satisfactory of all the operations with which I am familiar. I am most concerned with the excellent cosmetic result. A month after the operation one can barely see that an operation has been done; there is no evident scarring and no roughening of the conjunctiva, nor is there the atrophied conjunctiva that so often follows in other forms of operation. There is another reason why the smooth, unirritating bulbar surface following the operation is of value, and that is if it ever becomes necessary to open the eyeball the scar formed by the old method of operating is often a source of danger. I recently had such a case in which after making a preliminary iridectomy I had infection of the wound because of the remains of a pterygium that had been operated on by one of the old methods. The rugæ left formed an admirable culture ground for infectious organisms. In Chicago we find confirmation of the Doctor's theory as to the origin of pterygium. We have a very windy city there and sometimes a great deal of dust and yet we do not get the aggravated forms of it that he speaks of—we do not often see cases where the growth has advanced to the center of the cornea. We have the wind and the dust, but we also have a moist atmosphere, and that probably accounts for the comparatively rare occurrence of these cases.

DR. EDWARD JACKSON, Denver—I simply wish to emphasize what others have said about the value of this operation. I have been doing it for over a year, and find it a comparatively easy operation. It is followed by less swelling than any other transplantation operation I have ever seen done; and the ultimate results in all my cases have been more satisfactory than the results of any other measure. I have not done the operation on any very large pterygia, but on some that were comparatively large, and I found that in these there was no excessive after-swelling, and no reason to think that much larger ones might not be treated with the same results.

As to the danger of drawing the conjunctiva over the cornea, one operator who told me he had operated on seventy cases has modified the operation by also making an incision upward parallel to the cornea, allowing the conjunctiva to be partly drawn over the raw surface of the cornea. He claims that the wound heals quicker and that the conjunctiva always atrophies quickly. I see no reason, myself, for that modification, as the operation is simple without it and perfectly satisfactory.

DR. JOHN E. WEEKS, New York—I want to express my pleasure in having heard the able paper of Dr. McReynolds, and to congratulate him on the successful results obtained by his operation. After some operations, as advancement, for instance, where the epithelium is carried beneath the conjunctival tissue cysts develop, also in performing the Panas' operation for ptosis, where we carry the epithelium beneath the tissue of the brow we have a pouch remaining for quite a length of time. I would like to ask Dr. McReynolds if he has any difficulty in this way with his operation.

DR. E. E. HOLT, Portland, Me.—I used to do these operations by evulsion and allow the growth to shrink up and had good results, but since a conversation with Dr. Savage two years ago in which he described this operation to me, I have been very much pleased with its results.

DR. GEORGE F. SUKER, Chicago—it was my pleasure a year ago to see Dr. McReynolds perform this operation, and I think it is the ideal operation. There is, however, one suggestion I would like to offer, and that is, that in forming the pouch the head should bear a relative position to the pterygium itself so as not to have too much tension upon the head of the pterygium. Then, too, if the pterygium is very fleshy and large, I excise a strip of the lower edge so as to make it somewhat thinner. The results are perfect and the results of no other operation can be compared with it. The Doctor is to be complimented for having devised so simple, yet such an effective method.

DR. MCREYNOLDS, in closing—I wish to thank the gentlemen who have so kindly discussed the paper, and I must say

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that I deeply appreciate the cordial expressions of approbation that have followed.

There seems to have been only one difficulty apprehended in connection with the operation, and that is with regard to the overlapping of the cornea. I stated in my paper that if overlapping occurred you had simply to trim away that part and you would never know there had been any overlapping. You make it coincide accurately with the sclero-corneal junction.

As to Dr. Weeks' interrogation: I have never seen any cystic formation follow the operation.

In regard to the procedure when the size of the pterygium was large, as suggested by Dr. Suker, I stated that there was no objection to removing the head, and a portion of the subconjunctival elements of the growth if necessary. The essential thing in the operation is simply this, to have in the palpebral fissure a perfectly smooth conjunctival tissue and no heaping up of subconjunctival vessels, and no visible stitches, seam, or denuded sclera, to indicate that an operation has been done. It is covered by perfectly smooth conjunctiva and what vessels there are in the conjunctiva corresponding to the former situation of the growth are running in a vertical instead of a horizontal direction and there is no tendency to recurrence.

THIOSINAMIN.

CLINICAL AND EXPERIMENTAL OBSERVATIONS WITH REFERENCE TO CORNEAL OPACITIES AND OTHER OCULAR LESIONS.*

GEORGE F. SUKER, M.D.

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CHICAGO.

Mr. Chairman and Members of this Section:

Permit me to invite your consideration of an agent which of late has received considerable attention in the field of medicine and surgery. The writer alludes to thiosinamin. Perhaps it has received more notice, both as to published reports and clinical applications, in the foreign clinics than in this country.

All the experiments and clinical applications of thiosinamin bear reference to its especial resolvent action upon cicatricial tissue. In this particular it has been used for the removal of keloids (Tousey, Newton), lupus (Hebra, Van Horn), urethral strictures (Newton), rheumatic joint affections (Upsam), and for various dermic lesions (Hebra, Sendziak). In studying the report of cases from the above class, it must be tacitly admitted that thiosinamin has a more or less specific action upon cicatricial tissue. This action is in the nature of a resolving or loosening.

In view of the fact that it has found a suitable field of application in general medicine, it has led experimenters and clinicians to determine its efficacy in such a class of cases in ophthalmic practice in which there is a cicatrix or an opacity interfering with the proper functioning of the eye or its adnexa.

THE CHEMISTRY OF THIOSINAMIN.

Before detailing any clinical data or mentioning the appropriate class of cases in which thiosinamin is possibly indicated, let us briefly recount its physiologic actions and chemistry. For it is the rationale of these that has led to its use in ophthalmic practice.

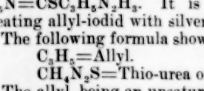
As to its chemistry, thiosinamin is an allyl-thio-carbamid or an alkylated urea in its construction. It can be obtained by mixing two parts of the oil of black mustard seed ($CSNC_3H_5$), one part of absolute alcohol, and seven parts of aqua ammonia (sp. gr. 0.960). This mixture is gently heated over a water bath to 104; after several hours the same is evaporated over the water bath, when the crystals of thiosinamin are thrown down. The chemical equation for this is $NH_3+CSC_3H_5N=CSC_3H_5N_2H_3$. It is artificially produced by treating allyl-iodid with silver sulphocynate.

The following formula shows its close relation to urea:

C_3H_5=Allyl.

CH_4N_2S=Thio-urea or sulpho-urea.

The allyl, being an unsaturated monovalent radical, is readily satisfied by the sulpho-urea, thus producing thiosinamin. The best formula showing its construction is this:



It gives glistening white acicular crystals, melts at 70 and boils at 148—soluble in alcohol and water; however, it readily decomposes in water. If glycerin is added to the aqueous solution, the decomposition process is sufficiently delayed so as still to be an adequate solution for hypodermatic injections.

PHYSIOLOGIC PROPERTIES.

Thiosinamin possesses no bactericidal properties whatsoever. Physiologically, we must look upon thiosinamin as an active alterative, thus virtually belonging to the same group of remedies as potassium iodid, mercury and the like. It is a gastric tonic. Thiosinamin is an active gland and lymph stimulant, in addition it always produces a hyper-leucocytosis. However, several hours after the first injection a marked hypoleucocytosis prevails—this is rapidly followed by a hyperleucocytosis. The white cells may drop from 14,000 to 4000 (Hebra). The hyperleucocytosis following the momentary hypoleucocytosis continues throughout the period of administration, though not as active as at first. Transudates and exudates are rapidly absorbed when thiosinamin is given. It produces local reactions without general disturbances.

The polynuclear leucocytes are greatly increased in number; even the amount of the hemoglobin is frequently increased. With reference to its action on the blood (Richter) thiosinamin must be classed with hemi-albumose, sodium urate, urea, tuberculin, pepsin, and peptone.

The cause for the initiatory hypoleucocytosis has not been determined, though it is true of other glandular and leucocytic stimulants.

In briefly summing up its physiologic actions, we can say that it is indicated whenever it is desirable to have a local reaction in an inflamed, cicatricial or poorly nourished area, without materially influencing the general system as a whole; and, whenever a glandular stimulant is indicated or a hyperleucocytosis is desirable.

INDICATIONS FOR USE.

Though thiosinamin has been employed in many fields of medicine, its proper place is in the treatment of corneal opacities. Here it accomplishes the most good, yet the genito-urinary surgeon claims excellent results in urethral strictures. However, our interests center in ocular lesions.

The class of cases in which thiosinamin is indicated is:

1. Corneal opacities from any cause whatsoever.
2. Cicatricial contractions of lids following trachoma.

* Read at the Fifty-third Annual Meeting of the American Medical Association, in the Section on Ophthalmology, and approved for publication by the Executive Committee: Drs. Frank Allport, H. V. Würdemann and J. A. Lippincott.

3. Certain intra-ocular inflammations, as exudative choroiditis.

4. Symblepharon.

5. Capsular opacities following cataract extractions (experimental).

6. Ectropion, especially cicatricial.

7. Plastic iritis.

ESPECIAL VALUE IN OPACITIES.

Though it accomplishes much in every one of this variety of cases, yet its greatest good is seen in corneal opacities. Still, the amount of success achieved in corneal opacities is dependent upon the nature of the opacity. Now, every corneal opacity, whether dense or not, is practically of the same cause. Briefly stated corneal opacities result from:

1. True cicatrices in consequence of actual corneal tissue loss.

2. Infiltrations of lymph, blood or serum between the corneal lamellæ which remain unabsorbed and perchance are of a low type of organized tissue.

3. Exudates due to inflammatory reactions of the corneal layers themselves and which have remained unabsorbed or are partially organized.

4. Inflammations of the iris and ciliary bodies secondarily implicating the cornea and causing opacities, e. g., keratitis punctata. The density and size of the opacity are dependent upon the severity and nature of the corneal involvement.

Whenever the opacity is a true cicatrix, especially when involving both Descemet's and Bowman's membrane, then I doubt whether any medication whatsoever can be of avail—not even thiosinamin being capable of doing much good. True, every cicatricial opacity is accompanied by a certain infiltrate or exudate in its immediate neighborhood. This much of the opacity can be removed, and to this extent only is the opacity cleared up and thus the visual or cosmetic effect improved.

It is superfluous to make the remark that you can not remove or revitalize, as it were, true cicatricial tissue; for, it is the only way nature has to repair or replace any loss of the original tissue. And no repair throughout nature, even though effected by nature itself, is as good or of the same standard in every particular as the original tissue.

However, it is different when the opacity is due, not to cicatricial tissue, but to an infiltrate or an exudate pure and simple. It matters little whether the exudate or the infiltrate is organized or remains as a so-called foreign innocuous substance within the corneal tissues. It is in these opacities that thiosinamin accomplishes the most, because it stimulates the glands, produces a hyperleucocytosis and thus increases the metabolic changes in the cornea, thereby removing the exudates or infiltrates.

In some cases more good is obtained than in others, though they are of the same practical clinical aspect. But this is true of any therapeutic agent.

USEFUL IN ECTROPION.

The next field of application is in the cicatricial contractions of the lids, producing the very annoying condition of ectropion. In all such cases the writer advocates the very thorough trial of thiosinamin before resorting to any operative procedures, for the reason that the application of a 10 to 15 per cent. thiosinamin ointment with massage to the contracted lid, as well as the internal administration thereof, will so modify the tension of the cicatrix as to be an important factor should an operation be ultimately necessary. If the ectropion is not very extensive or due to overly firm cicatrices, then thiosinamin will often overcome the defect. It loosens the cicatrix and thus allows the lid to resume its natural position. Though it may not relieve every form of cicatricial ectropion, yet it will so modify them all that the operation is materially benefited and the success thereof will be correspondingly greater. Hence, we can see that the application of thiosinamin in such cases is of no small importance. Sinclair Tousey and the writer have had signal success in cases of ectropion of the milder cicatricial variety.

In this connection, it may be said that thiosinamin often yields excellent results in the cicatrices of the tarsus and conjunctiva which are often the unpleasant sequelæ of trachoma. Here the remedy may be applied locally as an ointment to the everted lid, as well as being administered internally. Especially is it of value when grattage has been resorted to in order to effect a cure of the trachoma.

CHOROIDAL EXUDATIONS.

With reference to the benefit derived from the administration of thiosinamin in exudative diseases of the choroid and retina little remains to be said. After faithfully trying it in several recent cases, as well as in cases of long standing, of choroiditis exudativa, the writer finds that at times it achieves rather remarkable results. Yet the number of cases have been too few to definitely state its true value in this behalf. It seems to hasten the absorption of choroidal exudates when administered directly after the acute stage.

Though it does not accomplish as much in choroiditis as it does in corneal opacities, yet it does prevent the exudates from becoming too extensively organized, thus destroying the physiologic action of the choroid. As there is in nearly all such cases a cloudiness of the vitreous due to an exudate or infiltrate, the administration of thiosinamin materially mitigates this vitreous implication and maintains to uphold its transparency. For this reason, then, if for no other, is the drug indicated in cases of exudative chorioiditis of the disseminate variety. Clinical experience has taught the writer that if in such cases as just mentioned, the thiosinamin is given with the potassium iodid and mercury, the results are better than when thiosinamin is not given. From no remedy can we expect an absolute *restitutio ad integrum* when once a lesion has taken place in a tissue. Yet, we can expect a partial removal of the effete material from said tissue by the administration of so-called alteratives—and thiosinamin is an alterative.

OTHER USES OF THE DRUG.

Black of Denver has achieved some remarkable results with thiosinamin, not only as regards vision, but also from the standpoint of cosmetics. In several of his cases the unsightly corneal cicatrices were remarkably reduced in density so as to be less unsightly. This, then, is another field of applicability, namely, to reduce dense corneal opacities for the sake of appearance, even if we fail to improve the acuity of vision.

Again, the writer has seen good results follow its use in plastic iritis. It forms a material adjuvant in this particular disease when given in conjunction with the other indicated agents. It hastens the removal of the plastic exudate, and to this extent materially modifies the end results as far as iridic adhesions and capsular opacities are concerned. Though it does not always produce the desired effects, yet it is worthy of trial in such cases.

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In addition to the variety of indications already mentioned, thiosinamin can be used to an advantage for the sequelæ following trachoma, phlyctenular keratitis, pannus and such other lesions as produce cicatrices or opacities, due to either an acute or chronic condition of the cornea or conjunctiva.

Experiments have been made to determine whether or not it would prevent the maturing of cataracts or the formation of capsular cataracts, but no results of any value whatsoever have been obtained. This point is deserving of only a passing mention as a clinical experiment. For, in the hands of the writer, experiments along this line have been absolutely fruitless.

The foregoing remarks fully cover the indications for thiosinamin without entering into the minute details and, in a measure, state what is to be expected when it is administered in suitable cases.

MODE OF ADMINISTRATION.

Now a word or two concerning the mode of administration. Opinions in this regard seem to differ widely. Some, as Black, Newton and others, prefer the hypodermatic injections, two or three times a week. Again others, as Tousey, Ruoff and Beck, give preference to the administration per mouth. The weight of experience is in favor of three-grain capsules once or twice a day. The hypodermatic injections are not very desirable, as the solution does not keep overly well. Not only that, but abscesses are prone to follow; this has been the writer's experience. For topical applications, a 10 per cent. ointment is the most efficient. The latter can be applied two or three times a day in conjunction with massage of the part.

The idea of employing subconjunctival injections of thiosinamin for corneal opacities occurred to the writer but a short time ago. The fact that it is used locally for keloids led to the experiments. A 10 per cent. aqueous glycerinated solution is used. Of this 15 minims are injected three times a week; however, before administering thoroughly cocainize the eye. The injections are not painful, nor do they cause any great inconvenience. Whether or no they will accomplish more than the other mode of application is as yet an open question. Judging, however, from the results obtained in keloids, they might be productive of good in corneal opacities. Still, it being a general glandular and leucocytic stimulant, it seems rather problematical for local injections to accomplish more than the internal administration. Yet, often when agents are used locally in this manner they are more rapid in their actions than otherwise. This may be true of the subconjunctival injections of thiosinamin. However, repeated experiments and time will be the final judge in this matter.

Thiosinamin can be given with impunity to any patient of any age and, as a rule, in any state of the disease. Experience, however, pertinently teaches us not to give it freely in such cases as have a latent focus of tuberculosis or are convalescing from an articular rheumatism (Upsam). This warning is a good one, as the formation of a tubercle requires many leucocytes, and as uric acid is to a great extent dependent upon cell destruction. For, leucocytes are readily destroyed when not acting as phagocytes. We can, therefore, easily see how these two diseases would be aggravated were we to give it for any eye lesion present in such cases.

The results obtained are permanent in every case. That this is so is not very surprising when we consider that it simply causes exudates or infiltrates to be absorbed or fibro-cicatricial tissue to become less dense. For, should the results not be permanent, it would indicate the return of the original cause of the lesion for which it had been primarily prescribed.

Thiosinamin can be given for varying lengths of time, from one month to two years. After the patient has been taking it for five or six weeks, it is advisable to intermit a week or ten days and then begin again. In some cases it must be given for several months before any appreciable effect is noticed, it therefore behooves us not to be discouraged. The writer has had cases under treatment for six months before any improvement was noticed. These have all been cases in which the opacity of the cornea was very dense. The delay seems to be due to the fact that only a moderate hyperleucocytosis obtains instead of a very marked one—the same being true with reference to its power of stimulating the lymph glands.

RESULTS OF ITS USE.

Now, what can we expect when thiosinamin has been properly given in selected cases. Firstly, we get a decided thinning of dense corneal opacities, they becoming nebulous as a rule. The cicatrices in ectropion become more pliable and thus materially modify the ultimate operation, if one is needed. The exudates, transudates and infiltrates in any of the ocular structures are more readily absorbed.

As a whole we may sum up the actions of thiosinamin as follows:

1. It is a marked tonic.
2. It favors the absorption of exudates, transudates and infiltrates.
3. It clears up corneal nebulæ.
4. It produces local reactions without general systemic disturbances.
5. It reduces glandular swellings.
6. It causes cicatricial tissue to become soft and pliable.

THE AUTHOR'S EXPERIENCE.

In conclusion, permit the writer to make a brief tabulated review of a series of cases treated during the last year with thiosinamin. In the report only the general results are mentioned.

1. Exudative chorioiditis, 6 cases; improvement in 4, none in 2.

2. Corneal opacities, very dense, 10 cases; improvement in 6 with visual improvement of varying degrees, none in 4.

3. Corneal opacities, nebulous, 8 cases; marked improvement in 4, both in appearance and vision; moderate improvement in 2, both in appearance and vision; no improvement in 2.

4. Plastic iritis 6 cases. Benefit in 2; no benefit in 3; slight benefit in 1.

5. Capsular cataract 3 cases. Not the slightest improvement in any (thiosinamin tried as an experiment).

6. Ectropion (moderate cicatricial) 3 cases. Improvement in 2; no improvement in the other.

Finally, the writer wishes to say that one is not to look upon thiosinamin as a panacea for every corneal opacity or other ocular lesion in which it is indicated, but that it, like other medicinal agents, is entitled to a due consideration in a certain class of cases.

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DISCUSSION.

DR. H. G. SHERMAN, Cleveland, Ohio—Dr. Suker's paper has covered the ground so systematically that it leaves little to be said as to the nature, use and value of thiosinamin in corneal affections. Thiosinamin was first introduced to the profession by Von Hebra of Vienna, before the Dermatological Congress in 1892. Since then, many others have given considerable attention to its physiological action and therapeutic value, especially in keloids and various conditions resulting in cicatrices. Three years ago a most distressing case came under my observation: a young lad of seven years was scratched in the eye by another beneath whose finger nails there existed pathogenic germs very virulent in nature. The ensuing interstitial keratitis due to the exogenous microbic infection resulted in numerous cicatrices, reducing vision to 21/100. The condition baffled all treatment until my attention was called to thiosinamin by the investigations of Sinclair Tousey of New York, who found that the hypodermatic administration of the drug rapidly produced an increase of the white corpuscles of the blood, exciting a coördinate activity on the part of the connective tissue cells, bringing about an absorption of adventitious tissue, the debris being eliminated through the blood. After employing thiosinamin in the above case in one-grain doses three times a day, for a period of one year, continuing the drug for a period of eight weeks with intermissions of ten days, the vision was improved to 20/40. Thus encouraged, I have employed the drug in all cases of avascular chronic keratitis resulting in cicatrices, and have found it a valuable remedy, in nearly all cases improving the acuity of vision, and producing no marked untoward symptoms other than slight nausea and dizziness which pass away after a day or so. Mendel and Remak, however, have reported several cases in which entire groups of muscles have been more or less affected in their motor and sensory functions temporarily. I believe from my experience with a large number of patients in which this drug has been employed that it is of great value, and should find ready recognition in this class of most distressing cases.

DR. R. L. RANDOLPH, Baltimore—I would allude to the use of thiosinamin in a class of cases which has not been mentioned. I have never used it in eye troubles, but have had good results follow its use in tinnitus and I think its good effects are due to its action upon the vascular system. In some instances where I could get no improvement with anything else I have had very good results with this drug. I have never given it oftener than three times a day and in ½-grain doses, and a number of times have had vertigo follow its use. I would like to ask if the Doctor has had any such effect from its administration. I reviewed the subject in "Progressive Medicine" a few years ago, but was not familiar with its use in corneal affections.

DR. SUKER, in closing—In answer to Dr. Randolph's question as to the production of vertigo, I would say that this has occasionally been my experience, but the continued use, starting with ½-grain doses and gradually increasing, overcomes that. I have not found a patient that could not take three grains twice a day, but it is important to bear in mind that there must be an occasional intermission of ten days or two weeks.

A NEW OPERATION FOR COMPLETE LACERATION OF THE PERINEUM.

DESIGNED FOR THE PURPOSE OF ELIMINATING DANGER OF INFECTION FROM THE RECTUM.*

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The necessity for improved technic in repair of complete laceration of the recto-vaginal septum is emphasized by an occasional failure due to infection from the rectum, which may enter the wound when imperfectly approximated or by contamination of the sutures primarily and deeper tissue secondarily. Catgut may absorb too soon and allow the parts to separate. Silk sutures cause pain, ulceration, cicatrization and may even require removal through the speculum, all of which is undesirable. To overcome these objectionable features I have devised a very simple flap operation.

It consists in splitting the recto-vaginal septum, dissecting the lower end of the rectum from the vagina and drawing its anterior wall down through and external to the anus. In this way it converts a complete tear of the perineum into an incomplete laceration. The line of incision (black line, Fig. 1) starts on the external side of the sphincter dimple at a point close to one end of the sphincter muscle (S. M., Fig. 1). It follows the edge of the sheath of the muscle passing between it and the rectal mucosa, making the flap at this point as thick as possible; it then turns upward and forward to the cellular interspace of the recto-vaginal septum (S., Fig. 1) and follows along the edge of the septum, splitting it in the center, and returns on the opposite side to a place corresponding to the starting-point. This makes an incision similar to the ordinary flap-splitting operation, except at its extremities. The incision is best made with a pair of sharp-pointed scissors. After cutting through the cicatricial structures to the healthy tissue beneath, two pair of light compression forceps are placed on the rectal margin some distance on either side of the center, embracing in their grasp the entire

* Read by title before the American Gynecological Association, at Atlantic City, May 27-29, 1902.

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Fig. 1.—The black line of incision starts on the external side of the sphincter dimple at a point close to one end of the sphincter muscle (S. M.) It follows the edge of the sheath of the muscle, passing between it and the rectal mucosa, then turns upward and forward to the cellular interspace of the recto-vaginal septum (S) and follows along the edge of the septum, splitting it in the center. It returns on the opposite side to a place corresponding to the starting point.

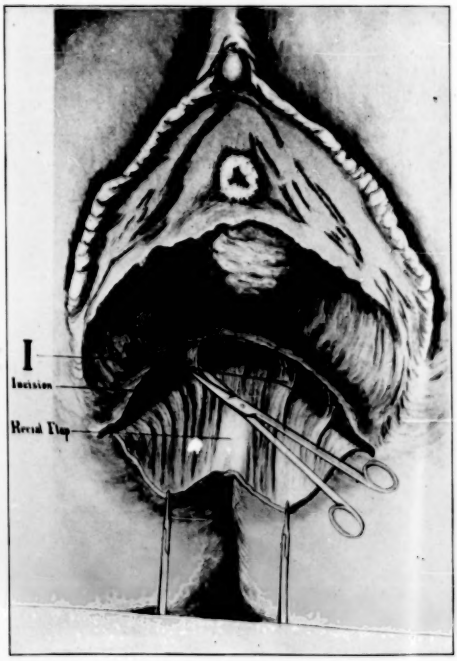

Fig. 2.—When slight traction is made upon the rectal flap, ridges or bands of tissue will form across the line of incision and should be cut as they appear.

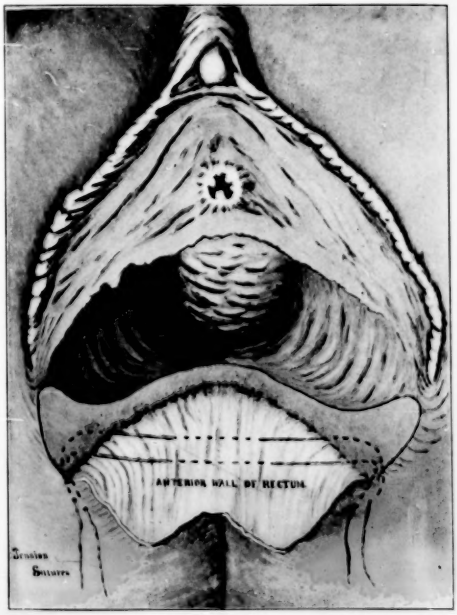

Fig. 3.—Two kangaroo sutures (tension sutures, Fig. 3, and 1, Fig. 4) are inserted behind one end of the sphincter muscle deeply into the perineum, embracing a large amount of tissue; then passed across to the opposite side, taking stitches in the thickest part of the rectal flap about its middle portion, carefully avoiding penetration of the rectal mucosa, and returned on the opposite side to the other end of the sphincter ani.

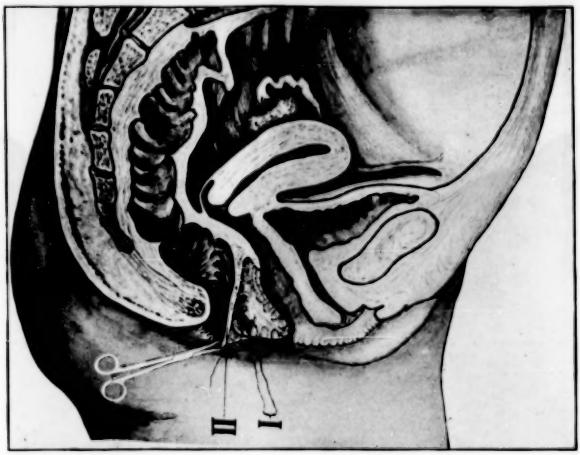

Fig. 4.—Vertical section of Fig. 3, showing tension sutures I, rectal flap II, and whip-stitch sutures closing mucous membrane and skin. This illustration represents closure of the vaginal angle with buried sutures.

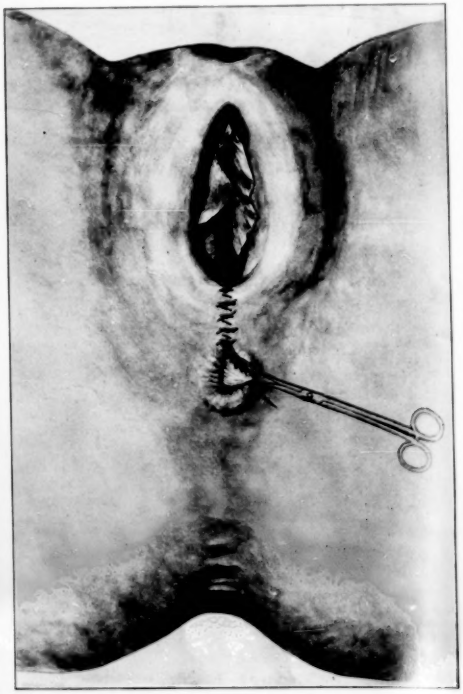

Fig. 5.—Whip stitch closing skin is used to fold the edges of the rectal flap together.

Fig. 6.—Operation as completed with the protruding rectal flap anchored on to the perineal incision.

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thickness of the rectum. The index finger of the left hand should be protected with a long finger-cot or rubber glove and passed into the rectum beyond the angle of the laceration as a guide to prevent perforation of the rectal flap. The forceps are held with the remaining fingers of the left hand and, as slight traction is made upon them, ridges or bands of tissue will form across the line of incision (I, Fig. 2). Dissection is continued by cutting these bands as they appear. In this way unnecessary cutting and bleeding will be avoided. The point of the scissors should be turned slightly in the direction of the vagina, that is, away from the rectum, for traction displaces its anterior wall, adding to liability of perforating the latter. Unless care is observed, the tendency will be to cut the flap too thin, not embracing the entire thickness of the rectum, but this can be avoided by confining the cutting to the cellular interspace.

The objections to thin flaps or those consisting of mucous membrane only are susceptibility to injury, inability to hold tension sutures and imperfect protection against rectal infection, due to inferior vitality. Even the thicker flaps should be handled delicately and only slight tension put upon them, for the sides adjacent to the sphincter muscle are necessarily thinner than other parts. Carelessness may cause laceration at these points and destroy the main feature of the operation.

It is surprising what little cutting will permit extensive sliding of the rectum downward without dragging upon the vagina. It moves very freely when its lower portion is liberated. The forceps should be left hanging to the flap to hold it in position external to the sphincter muscle. After reaching this stage of the operation there is no longer any necessity for the finger in the rectum. It should be withdrawn, the glove removed and the hands resterilized. The sides of the perineum are next denuded and the excess of the vaginal flap cut away. Two kangaroo sutures (tension sutures, Fig. 3, and I, Fig. 4) are inserted behind one end of the sphincter muscle deeply into the perineum, embracing a large amount of tissue; then passed across to the opposite side taking stitches in the thickest part of the rectal flap about its middle portion, carefully avoiding penetration of the rectal mucosa, and returned to the other end of the sphincter ani (Emmet sutures). In exceptional cases the sphincter muscle may be very much shortened or retracted and its ends require approximation by buried sutures to secure the best immediate results. When the Emmet sutures are tied the wound is converted into the condition of a simple perineorrhaphy (II, Fig. 4), and is then closed by some method employed for incomplete tears.* I prefer closing in layers, bringing together the mucous membrane, muscles, fascia and skin in their respective order. This is best accomplished by passing interrupted catgut sutures across the angle from side to side without penetrating the flap. They should be placed about three-eighths of an inch apart and continued down the crown of the perineum. On reaching the fascia, overlying the levator ani muscle, its edges should be dissected free and approximated by including them in the sutures. The levator ani muscles, deep fascia and triangular ligaments should be exposed and approximated by buried sutures of small size kangaroo. Suturing muscles together parallel to the direction of their fibers adds very little strength to the parts; the object, therefore, in bringing the levator ani muscles together is to prevent formation of dead space. The weight of a dragging uterus or process of labor will soon separate any union that may take place between these two muscles; even the natural contractility and lateral traction produced by displacement to the median line will, in a short time, cause absorption of any adhesive bands that may take place between them.

I heard a distinguished surgeon state that muscular contact and union is all that is requisite to produce successful perineorrhaphy. This is not true, however, for the fascia is just as essential to the support of the perineum as the aponeurosis is to the abdomen. This I emphasized in a paper read before the Medical Association of Georgia, in which the easiest method of locating and dissecting the edges of the fascia was described.

The remainder of the wound is closed with interrupted sutures passed through the skin and superficial fascia. In addition to this, I like to closely approximate the edges of the vaginal mucous membrane and skin with small catgut whip-stitches, continuing the same down to the mucous flap (Fig. 5) projecting from the rectum, the edges of which are trimmed free of scar tissue, folded together and closed with the same suture. The sutured flap should be turned forward and anchored over the perineal incision (Fig. 6) with a mattress suture of kangaroo to carry it as far away from the anus as possible, with a view of lessening the risk of infection or contact with fecal matter. The kangaroo suture absorbs readily, the rectal flap retracts within the anus and returns to its normal position in seven or eight days.

The advantages are:

1. The removal of liability to infection and percolation of fecal matter from the rectum.

2. The avoidance of rectal stitches with the pain, distress, ulceration and cicatrization incident to such sutures.

3. The advantages over the Ristine operation are that it is applicable to all cases, does not distort or disfigure the vagina or turn a lot of cicatricial tissue into the rectum and is devoid of the tediousness of dissecting flaps.

4. It promises uniform success and permits early evacuation of the bowels without jeopardizing results.

5. It is practically bloodless.

6. It is so easy to perform.

My friends, to whom I have shown this operation, admit its necessity and advantages and assert that the principle is practical; few raise any question of objectionable features. I have been asked, however, if the dragging down of the rectum displaces the vagina. To this I reply in the negative. It produces an excess of vaginal flap that requires trimming away, but the uterus is not disturbed in its normal relation to the pelvis, showing that no dragging upon it takes place.

The operation is very easily and quickly done. Making the flap and introducing the tension sutures require much less time than suturing the mucous membrane of the rectum in the present method of operating. Closure of the remainder of the wound is the same, and, therefore, is unchanged either in time or detail, choice of methods being left to the discretion of the operator. Mention only is made of my operation of approximating fascia, muscles, etc., in layers with buried sutures, as the results are better, but the technic is purposely avoided because the object of this paper is to present my method

* The method for incomplete laceration of the perineum is not given in detail as it is not essential to the operation here presented. Closure by suturing fascia with buried sutures is described in a paper by the writer, read before the Medical Association of Georgia, 1899. See transactions.

of eliminating infection from the rectum as a potent factor for evil in lacerations extending into the bowel.

A notable feature is the small amount of bleeding that occurs. Really, it is less than the average operation for partial laceration of the perineum. The reason is that in the latter, hemorrhoidal vessels are encountered that cause more or less annoyance from venous bleeding. In my operation they are not encountered unless the mistake is made of cutting too close to the wall of the rectum, but if it is confined to the loose tissue between the rectum and the vagina the hemorrhoidal vessels will escape untouched. In two instances I had to ligate a single vessel (they were in the first two cases) before I fully appreciated the importance of keeping in the cellular interspace.

The bowels should be evacuated on the third or fourth day, using oil and glycerin enema in addition to a saline purgative. The tension sutures are left to absorb, but should be removed if they become infected, usually about the seventh day.

CASES.

The first patient upon whom I did this operation was a very small woman (Mrs. G. R. D.), who came to my infirmary from Anniston, Ala. She had a tear measuring two inches up the rectum after a cicatrization. The surrounding scar tissue was very dense and the two sides of the perineum very difficult to force in contact. The posterior rectal mucosa protruded beyond the muco-cutaneous margin. The incision was easily and rapidly made and the flap drawn an inch and a quarter below the anus, showing very great mobility of the rectum after separating it from the vagina. Surely if it can be drawn down three inches in a small woman, the principle of the operation must be practical in the average subject. The operation was done Oct. 14, 1901. In this case silkworm was used for the Emmet sutures to fix the ends of the sphincter together and to hold the flap down. They gave satisfactory results, but created pain by cutting the skin, consequently they were displaced for kangaroo tendon in subsequent cases with one exception. The angle of the vaginal wound was closed with catgut sutures. Kangaroo was used to approximate the deep fascia, triangular ligaments and muscles. Catgut was also inserted in the skin and superficial fascia. The woman made an excellent recovery without infection. The flap almost completely retracted on the seventh day.

CASE 2.—Mrs. J. W. J., from Rosewood, Ga., age 25, white. Operation at Grady Hospital Oct. 25, 1901. An attempt had been made to close the tear before she came into my care. Laceration measured one and one-fourth inches up the rectum; there was considerable loss of tissue on either side, scar tissue extended high up on the side of the vagina and an unusual loss of rectal mucous membrane had occurred. The operation was done as described in the body of this paper, using kangaroo for the tension or Emmet sutures. The flap projected an inch beyond the anus. Recovery free from infection and almost painless. Flap retracted on the eighth day.

CASE 3.—Mrs. Alice S., age 28, Atlanta, Ga. Laceration of six years' duration, extending one and three-fourths inches up septum. A thick band of scar tissue extending up the vagina to cervix uteri, showing that the vagina was lacerated its full length, the rectum less involved. Operation Nov. 25, 1901, at private residence. In splitting the septum the long vertical strip of scar tissue was not encountered, showing that the upper part of the tear implicated the vagina only, consequently the descent of the anterior wall of the rectum was not hindered in the least. Kangaroo tension sutures were used to hold the sphincter muscles and rectal flap. The vaginal angle closed with catgut. Kangaroo was used to close skin and body of the perineum (Fig. 5) and catgut to closely approximate the edges of the wound, then completed as above described. The flap projected one and one-fourth inches below the anus and retracted on the ninth day. The kangaroo in the body of fascia and skin caused pain and required several doses of codein, otherwise recovery excellent.

CASE 4.—Mrs. J. E. B., Atlanta, Ga. Age 30. Complete laceration of the perineum of about three years' standing, extending nearly two inches up the rectum and fistulous tract extending from the side of the torn perineum to an ischiorectal abscess on the left. Operation Dec. 20, 1901. The abscess was evacuated, curetted and drained through an incision below the edge of the triangular ligament and about one inch from the side of the anus. In curetting the fistulous tract, the abscess cavity was opened so that it communicated freely with the wound of the perineum, consequently the kangaroo sutures were dispensed with and silkworm employed in their stead, both for tension sutures and for the purpose of closing the body of the perineum, tying same on skin. The lateral dissection was limited more or less by the abscess, consequently the flap was not brought as far external as in other cases. It was turned forward and anchored with silkworm sutures which cut through the edges of the flap at the end of the fifth day, permitting retraction twenty-four hours later. Recovery was very good, but there was more or less pain from the cutting of the silkworm sutures.

CASE 5.—Negro, Emily J. Age 25. Operation in Grady Hospital, Jan. 28, 1902. Diabetic subject, cocain anesthesia. A small band of tissue connected the two sides of the perineum at the posterior commissure, a result of an attempt at closure some one had made. Laceration of the rectum one and a half inches deep, cicatricial tissue very dense, parts very rigid. The operation was done as above described, using kangaroo for the tension sutures. There was very little pain. The flap retracted on eighth day—results satisfactory. The operation was rather difficult on account of the cocain anesthesia; the patient was rigid and parts unyielding.

PLASTIC SURGERY OF THE FEMALE URETHRA.

WITH REPORT OF A UNIQUE CASE.

HENRY P. NEWMAN, A.M., M.D.

Professor of Gynecology and Clinical Gynecology, College of Physicians and Surgeons, Chicago, Medical Department of the University of Illinois, and Professor of Gynecology, Chicago Policlinic.

CHICAGO.

The restoration of the female bladder when extensively torn and its floor practically destroyed by the original injury and subsequent unsuccessful surgery, is in itself difficult enough, sometimes impossible, but where you have also to construct a new urethra and devise means of controlling the flow of urine, the problem is indeed a perplexing one. Many methods have been tried, some of them with marked success, for reconstructing this membranous canal with its mucous lining, but the literature of the subject shows that the same method can rarely be applied twice, since each of these unique accidents happens in its own way and calls for a new and specially devised operation.

In presenting this report I had hoped to give final results in a very interesting case now under treatment at the Marion-Sims Hospital, but its progress, while satisfactory, has been tedious, and I am obliged to give you only such data as I have up to the present. This has for me possibly some advantages, since a free discussion of the further steps which I had proposed to take may be of benefit to some future sufferer similarly unfortunate.

ETIOLOGY OF THE INJURY.

The patient, Mrs. S. W., referred to me by Dr. Inks of Nappanee, Ind., is 39 years of age, and has been married three years. She is only four feet eight inches in height, undeveloped, with a generally contracted pelvis and an ankylosed hip, resulting from a severe attack of Pott's disease in early childhood. Two years ago she gave birth to a full term, still-born child. The

delivery was accomplished without instruments, but was a forcible extraction through a narrow pelvis with a distended bladder. The resulting rupture involved an extensive tear of the bladder floor and complete obliteration of the urethral tract, which was laid open the entire length. By subsequent retraction of the torn surfaces even the landmarks of the previous urethral channel were lost.

PREVIOUS ATTEMPTS AT REPAIR.

Six weeks afterward, while the patient was still in bed from the results of her severe delivery, an attempt was made to repair the injury. This was repeated in April and September of the following year. The two first operations were done in a private dwelling, the last in a small country hospital. These were conscientious attempts and were done probably as well as limited facilities and experience could do. The results, however, were most discouraging.

When the patient came to me last December she had a veritable exstrophy of the bladder. The organ was everted through the large rent in the floor and the

Figure 1.

reddened and inflamed bladder walls were thickened and covered with mucus. The vulva and thighs were excoriated and she had a large inflamed surface over the lower sacral region, in the center of which was an ulcer the size of half a dollar. The left hip was ankylosed, the pelvis narrowed and the rami of the pubis, practically denuded of all but a thin covering of scar tissue, formed a very acute angle. No trace of a urethra could be made out in any of the surrounding tissues. The small, hyperinvoluted uterus was deformed by tears and resulting scars, the cervix drawn forward and downward by the large cicatrix in the small vagina, as will be seen by the accompanying cut. (Fig. 1.)

TREATMENT.

I operated in January last, attempting to constrict the floor of the gaping bladder wall as a step toward subsequent closure. Flaps were taken from the vulva on either side and, after splitting the bladder and vaginal wall, a considerable closure was accomplished by means of silver-wire sutures, a drain or retention catheter being inserted in an opening behind the line of sutures and the patient kept in the exaggerated dorsal position until the wound healed. It was desired to prevent in this way the urine from accumulating and soiling the sutures. The second operation was done in February, when still further closure was accomplished by a similar suturing of flaps, this time with silkworm gut. My further aim in both instances was to construct a urethral channel from the soft parts about the vestibule and from the labial mucous membrane. The results obtained left much to be desired, but the patient, feeling herself greatly improved over her former condition, left the hospital during my absence in the south, and has but just consented to return for completion of the work.

RESULTS OF THE PROCEDURE.

The operation which I have just performed, and which was along the same lines, bade fair to be successful in closing the entire bladder and obtaining a urethral canal, and its partial failure is due to an accident. An attendant, unfamiliar with the case, in replacing a drainage catheter, pushed it through the newly-formed urethra instead of into the artificial opening provided for the purpose. As it is, the patient can hold her urine for a considerable time when in the recumbent position, and I believe some mechanical appliance can be provided which will prevent involuntary evacuation and leakage. Since the work I have already done has proven so successful I shall abandon the intention I had when this report was projected.

Figure 2.

In another case presenting all the formidable features of this one, I would be disposed to do the operation I have devised and which I will briefly outline, rather than to expose the patient to the annoyance and distress—amounting in a tubercular subject to danger of life—incident to prolonged confinement and repeated operating.

THE PROPOSED OPERATION.

After the usual aseptic and antiseptic preparation, the patient is placed in the lithotomy position, the uterus drawn down with vulsellum forceps and a semilunar incision made through the mucous membrane behind the cervix in the vaginal vault. This procedure and the opening of Douglas' cul-de-sac are the classical first steps in vaginal hysterectomy. The tubes and ovaries are now ligated with catgut and severed, and as much also of the broad ligament as is necessary to allow of the uterus being turned downward through the posterior vaginal opening and sufficiently inverted to close the gap in the floor of the bladder. (See Fig. 2.)

The mucous and serous surfaces coming in contact with each other and intended for approximation are

denuded and stitched together by interrupted silkworm-gut sutures.

An opening made through the wall of the uterus into the uterine cavity at a point corresponding with the location of the external meatus and a retention catheter inserted up through the dilated cervical canal into the bladder.

The parts are approximated with sufficient firmness to prevent leakage from the now fully-constructed bladder. The vagina is loosely packed with iodoform gauze and the patient put to bed. Permanent drainage is established by means of the catheter and extension tubing leading into a receptable containing a 1-2000 bichlorid solution.

The newly-formed bladder is washed out with a saturated solution of boric acid every eight hours and the external parts bathed with the bichlorid solution, followed with sterile water and dusted with aristol or some antiseptic powder.*

OTHER METHODS IMPRACTICABLE.

When we consider the horrible state the patient is in, the danger of infection extending to ureters and kidneys, the depressing mental effect, the impairment of general health, the danger to life, some radical procedure for relief seems imperative. Again, the usual methods will not suffice. Entire closure, whether or not it includes the vagina, as in urinary fistulæ, makes no provision for voluntary urination. A suprapubic opening as used in the male would be inapplicable. The gradual drawing downward of the uterus until it can be used for plastic closure of the bladder opening could not be done in this case, owing to the adhesions and fixation. Rolling up of vaginal tissue to form a urethra after the unique method of MacArthur and subsequently using the device of Kolesche, so ingeniously perfected by Fletcher, for controlling the flow of urine, was not possible because scarcely any anterior vaginal wall tissue was available. The transplantation of the trigone into the rectum was contraindicated by the insufficiency of the rectal sphincter. Indeed, all known methods seemed impracticable.

ADVANTAGES AND DISADVANTAGES.

The method proposed has in its favor these points. The entire operation for closing the bladder and furnishing a urinary tract can be done at one sitting, with a strong probability of its successful issue. The saving of time and suffering to the patient is a great consideration.

The possible sources of failure might be: insufficient collateral circulation in the uterus separated from its posterior attachments. The use of serous instead of mucous membrane for the bladder floor might be more or less objectionable, though this has already been successfully reported; the uncertainty of inducing sphincter-like control of the circular fibers of the cervix uteri.

In spite of these difficulties I believe it is possible to use as a factor in forming another urethra the hyperinvolute, deformed uterus which has now no functional value proportionate to the service it might be made to perform.

100 State Street.

* This operation should not be confounded with the simple drawing down of the uterus without inversion for plastic work, nor with Freund's procedure in cases of vesical and rectal fistulæ. In this latter only the body of the uterus is used, the cervix above being curled on itself and walled off by cicatricial tissue.

Treatment of Warts.—Kaposi used to advise painting the wart and adjacent tissues every day with a mixture of bichlorid one part to thirty parts collodion.

OBSERVATIONS ON SOME RECENT CASES OF ORTHODONTIA.*

E. A. BOGUE, M.D.
NEW YORK CITY.

The two cases that I have been observing are brother and sister, eight and nine years old, respectively, and the observations have continued for a little more than two years. Both these children presented the curious anomaly of irregular deciduous teeth, though the teeth of both parents were, until extractions were practiced, remarkably regular. This irregularity of the temporary teeth meant, of course, contracted arches. In the case of the boy the contraction was so great that the lips fell

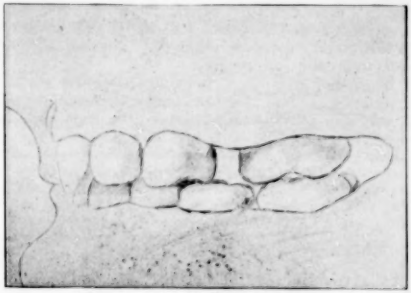

Fig. 1.—John M., 8 years old. Teeth closed and upper molar far in advance of its proper position. Lips fallen in like an old edentulous person.

in like those of an edentulous person (see cut of profile), giving him the appearance of a very old man. I greatly regret that I did not have a photographic profile made at the time, but his mother was so confident that she had one that I did not urge the matter, and it is now too late to secure this almost unique specimen.

The problem in both cases was to procure an enlargement of both arches in the easiest and most painless way

Fig. 1A.—John M., 8 years old. Mouth as it was July, 1899, closed.

possible, and with the least detriment to the teeth and disturbance to the children, and then to retain these teeth in their new positions, holding them out of one another's way during the continued shedding of the temporary teeth and the eruption of the permanent ones.

As children of that age are constantly active, fingers, tongue and lips included. I determined upon fixed, that is to say, nonremovable apparatus, and the first was put on April 19, 1900, when the boy was just eight years old and the girl about nine.

* Read at the Fifty-third Annual Meeting of the American Medical Association, in the Section on Stomatology, and approved for publication by the Executive Committee: Drs. G. V. I. Brown, M. H. Fletcher and R. R. Andrews.

The fixtures consisted of gold tubes, soldered to rings, which were cemented on to the molar teeth; a wire screw bow carrying nuts at each end, the bows passing around in front of the incisors to which they were attached by loops soldered to rings fitted over and cemented to the incisors, the ends of the bows being passed into the tubes on the molars. The position of the nuts on the ends of the bows was in front of the tubes. It will be perceived therefore that ligatures of any kind could be attached to any or all of the intervening teeth between the molars and the central incisors, which were

Fig. 1B.—John M., 8 years old. Mouth as it was July, 1899, open.

the points of permanent attachment. The reason for putting two nuts on each end of these wire bows is that one nut may serve as a jam nut to keep the other from turning backward after the pressure arising from its work has been relieved by the movement desired. In the case of the boy the upper incisors were so far within the arch as to make the child seem, as before stated, edentulous. Expansion was therefore begun on the upper jaw by turning the nuts on the wire bow a day

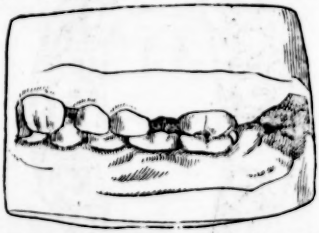

Fig. 1C.—John M., July, 1899. Shows teeth closed and the upper molar far in advance of its proper position.

or two after the rings had been cemented into place, the bow inserted into the tubes and the patient had become accustomed to the apparatus being in place. About two weeks later a similar fixture was adapted to the lower teeth, this bow being attached to the two lateral incisors, this time by means of grass-line ligatures. Pressure was applied in both cases by turning the nuts and renewing the grass-line ligatures, and in forty days such progress was made as rendered it quite safe for the boy to go away. He sailed for Europe June 6, 1900, with the regulating fixtures in place. One or two of the rings attached to the incisors came off and had to be recemented during his absence, but this was easily accomplished, and he returned from Europe and was presented for observation November 16. He had been absent five months and ten days with very slight attention to the fixtures during that time.

In December a gold wire retaining fixture was inserted to keep the lower incisors forward, where they had been drawn, on the principle that if the lower incisors were retained in position the upper ones could not fall back. Nothing was put upon the upper teeth. This wire retainer was broken and repaired from time to time, but was kept in place until January, 1902, thirteen

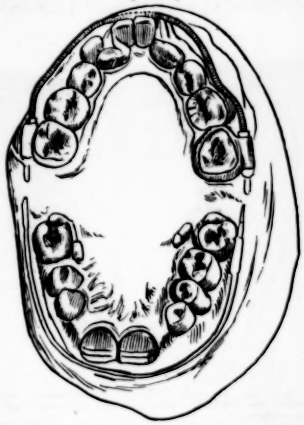

Fig. 2.—John M. Upper fixtures, placed April 19, 1900. Lower fixtures, about May 3. These fixtures were worn in a trip to Europe, June 6, 1900, and remained in place until his return, Nov. 16, 1900.

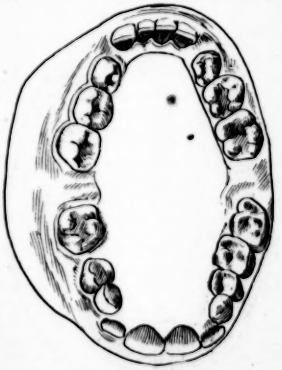

Fig. 3.—John M. Appearance of the teeth Nov. 16, 1900, after his return from an absence of five months and ten days.

months. Within a month from this date, as the bicuspids had begun to appear, rings and bars similar to those put on twenty months before were arranged to complete the expansion of the two arches above and below, and on February 6 and 10, the bars having been placed, the teeth were tied to them and traction was begun. On February 13 a gold screw was placed in the grinding end of the second left upper bicuspid, which tooth was partly

erupted, three-quarters of its width inside the arch, as was also the right second bicuspid. This screw was wired to the bar. On March 10, one month from the time the fixtures were reapplied, it was discovered that the upper left permanent molar did not occlude properly with the lower, but that owing to an early loss of the second temporary molar it had come forward the full width of one cusp. As this occlusion would inevitably produce irregularity in the occlusion of all the teeth forward of that point, on that side of the jaw, an upper rubber plate was inserted on March 17, 1902, which carried a screw resting in a long socket with a nut (afterwards changed to two nuts) on the screw, a claw on the end of the screw which rested against the upper molar above the line of the ring that was cemented to that molar. This claw prevented the screw from turning in the socket, and the turning of the nuts on the screw exerted a pressure backward against this permanent molar, which pressure was sustained by the entire roof of the mouth, contact against the incisor teeth beneath their rings, and the hold that the plate got under the ring attached to the right upper molar.

Fig. 4.—John M., December, 1901. Wire retainer modified to throw outward the erupting cuspids as the first temporary molars have fallen away.

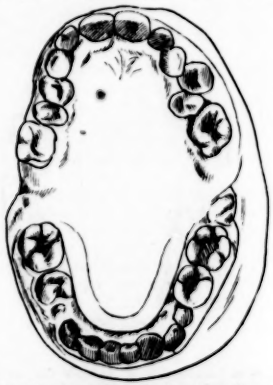

Fig. 5.—John M., January, 1902. Shows condition of teeth after one year of wearing the lower wire retainer only.

Now began the most difficult part of this regulating for the boy. The force of eruption forward was so great that to obtain the slight movement backward that should allow the cusps of the left upper and lower molars to come into their proper places, it was necessary to exert an opposing force that perceptibly changed (at least temporarily) the shape of the roof of the mouth. This pressure moved the rubber plate forward so that the scalloped points that penetrated between the teeth on that side of the mouth were moved to the centers of the teeth, and the four incisors were driven forward nearly one-eighth of an inch.

On March 28 the second upper bicuspids, whose movements were commenced February 13, were found to be in place, that is, sufficiently drawn outward toward the bar not to require further movement. They were actually a little too far out. At this time measles attacked

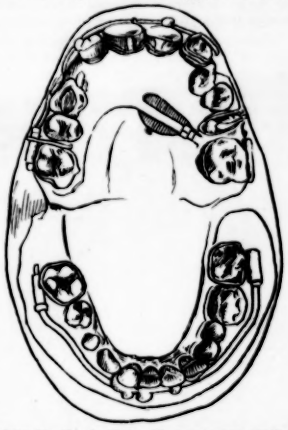

Fig. 6.—John M., March, 1902. Shows progress made in pushing backward the first left upper molar in about forty days, and exhibits fairly well the fixtures employed when he fell ill with measles and was not seen for one month.

Fig. 7A.—John M., May 16, 1902. After recovery from measles. Shows conditions twenty-six days later, with left superior molar pushed back about 3/32 of an inch and the adjoining bicuspids drawn nearly to their proper position.

the children, and one month passed before I saw the patients again. During the eleven days that I had been trying to move the left upper molar backward, using only one nut, little progress was made, but on April 28 and 30 I resumed work by placing the two nuts in position and renewed operations upon the molar. In fourteen

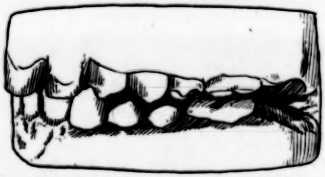

Fig. 7B.—John M., May 16, 1902. Shows side view of teeth with mouth closed.

days the conditions were such as are evidenced by the models. The upper and lower left molars cusped with considerable accuracy, and I made my preparations to let the boy carry this regulating plate in his mouth again across the ocean. Previous to his sailing I constructed two upper rubber suction plates, designed to

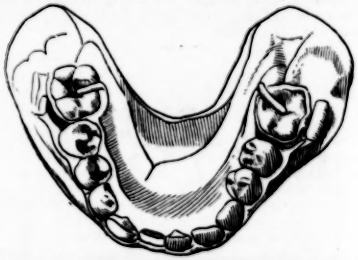

Fig. 7C.—John M., May 16, 1902. Shows lower retainer in place the day boy sailed for Europe the second time.

hold the upper molar where it is, to guide the bicuspids as they shall continue to erupt, inclining them a little outward of the lines of the normal arch, and for the time being to prevent the incisors from falling back, although they are now too far out. I have made a lower retaining apparatus that will scarcely more than touch

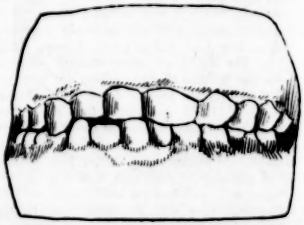

Fig. A.—Louise M., 4½ years old. Temporary teeth all in place: mouth closed.

the lower teeth at the gum margin, but that snaps in after the daily cleaning, and that will absolutely prevent the dropping back into a smaller arch of any of the teeth that have been drawn forward or outward. As soon, therefore, as the bicuspids shall have developed sufficiently for their long cusps to interlock the upper with the lower, the upper retaining plates may be discarded, for this cusping will surely hold the upper teeth in position so long as the lower teeth are firmly held. Having plenty of room, inasmuch as none of these teeth are in contact with each other, the development of the bicuspids was remarkably rapid. The models show how rapid.

The same plan was adopted for the little girl as for her brother, and the enlargement of both arches was ac-

Fig. B.—Louise M. Same mouth and same date. Mouth open.

complished without any complaint of pain on the part of either child.

When the regulating fixtures had remained without disturbance some weeks after they had accomplished their work a wire retaining plate was adapted to the lower teeth so as to snap into place. This retainer holds the incisors securely forward and in proper relation with the molars. It gives ample room for the development

Fig. C.—Louise M., July, 1897. Same mouth, showing the first permanent molars and the incisors partly erupted.

of the lower bicuspids and cuspids, and the upper teeth developing a little later will also have ample room to come to their respective places because the upper incisors are held forward by shutting over the lower incisors, which are held firmly in position by the retainer.

I wish to emphasize the following facts:

First. That a perfectly arranged lower arch in ordinary cases guides the teeth of the upper arch into

their proper positions and holds them there without additional appliances, and even in a case where the temporary teeth are irregular, operations to correct deformity may be begun almost as soon as the first permanent molars and incisors make their appearance.

Second. That these operations may be almost or quite painless.

Third. That they may be accomplished with great

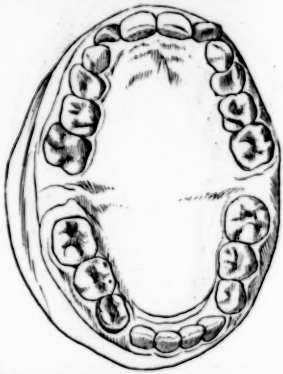

Fig. D.—Louise M., December, 1900. Shows lower incisors drawn forward considerably and a beginning made on the upper incisors.

rapidity and with such certainty that absence through unexpected sickness or protracted journeyings scarcely interrupts the orderly progress of the work.

Fourth. That this work may be accomplished with no perceptible detriment to the teeth.

Fifth. That the regulating fixtures themselves may

Fig. E.—Louise M., May 20, 1902. Shows the mouth open, with the incisors both above and below advanced to their proper places and the lower retainer in position. No retainer above.

be retained as retainers weeks or months after they have finished their corrective work.

Sixth. That retaining plates may be inserted that retain the lower teeth in position so surely that, as a rule, no retainer is needed above, if we have paid strict attention to the proper occlusion of the teeth.

Seventh. That these retaining fixtures may touch the teeth so slightly, as illustrated by Dr. Baker of Boston, that even if they are worn continuously without removal, the teeth can be as thoroughly cleansed around them as though the retaining fixtures were not in place.

DISCUSSION.

DR. E. S. TALBOT, Chicago—I wish to take exception to the use of the term "contraction." The term has crept into the profession without knowing the etiology of the conditions represented. There is not a contraction. It is an arrested development. Contraction means a condition in which a jaw has reached a certain size and then has grown smaller. Here and in all of the cases where one jaw is smaller than the other the term is not proper, and is misleading.

There are two objections to the correction of irregularities at this particular time. The roots of the permanent teeth are not properly formed and moving has a tendency to produce deformity of the roots. This has been seen in children who have struck their teeth. The second objection is that when arrest of development takes place it is not known whether that jaw will develop. There may be an arrest of development that never will progress. The arrest may take place in the temporary teeth and not in the permanent. Moving of the teeth is not advisable since they are thrown from the inner surface of the alveolar process and there is little or no bone left on the outer border. Such a case is illustrated in Tomes' work on dental surgery, where teeth erupted on the outer border of the alveolar process. There is an advantage, on the other hand, in assisting naturally in developing the alveolar processes and the jaw-bone.

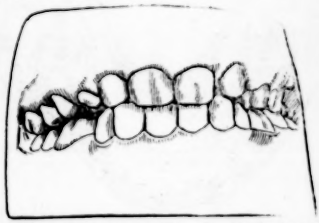

Fig. F.—Louise M., May 20, 1902. Same mouth, with lower retaining fixture in place, but not upper; teeth closed, showing how the cusping retains the teeth in position.

I do not think there is a change in the roof of the mouth as mentioned by the writer, but in the alveolar process. Some New York neurologists have made a great mistake in that point. In a paper before one of the societies, the writer spoke of a change in the vault, and there was not a single case reported to show a change. There was rather hypertrophy in the alveolar process, which is very common among neurotics.

The two children operated on are certainly degenerate children. Dr. Bogue has done a fine piece of work, and he has been assisted by the children's going abroad. Had they remained at home the chances are they would not have gotten on so well. They would have broken down. This brings up a point not mentioned in the text-books, that all of these children, who have arrested development of the jaw, are neurotics and degenerates. The presence of the arrest shows that the system is unstable. Whether to commence this work early or at the period of puberty is a difficult question. I venture to say that if Bogue will watch these children he will find that from 12 to 16 years they will be found very irritable and nervous. Such has been my experience.

DR. BOGUE—I would like to ask Dr. Talbot to define what he means by "degenerate."

DR. TALBOT—One whose nervous system is unstable and whose physical development is a departure from the normal.

DR. VIDA A. LATHAM, Chicago—The work of painless regulation cases is a very, very strong point. To me these cases are the most objectionable for the conditions wear upon the nervous and mental system of both patients and parents. I was glad to hear the Doctor speak of the second and third nuts.

The little folks will turn the appliances with their tongue back to the old place. If the second nut controls this I am exceedingly glad to know it.

One question from a developmental point: in a vertical section through the face, the lower jaw shows a more pronounced eruption than the upper, I wondered if this makes any difference in the eruption of the process and in its character as well as in the teeth.

Dr. J. L. Williams, Boston—I want to express my approval of this painless process. My habit has been always to remove the pressure at the first indication of pain. The teeth can be moved intermittently without harm. I have seen mischief resulting when the rubber was not watched. In one case mentioned, after careful correction of the lower teeth, at the urgent solicitation of the patient's mother, the regulation of the upper teeth was commenced, with the provision that the patient should come to me for frequent adjustments. This she neglected to do, and though there was much pain, she thought mind was superior to matter, and when I next saw her the pulp of one of the incisor teeth was dead. The intermittent regulation of teeth is the only safe method.

Dr. Bogue, in closing—I accept Dr. Talbot's exception very gladly, but will take the liberty of repeating what I did say: "That there was a perceptible change, which lasted temporarily, of the shape of the roof of the mouth." I did not mean that anything but the gum was really affected. In regulation cases the alternate work and rest is the only way to accomplish results with entire propriety and health. The extraction of teeth to make room is a fallacy never so fully understood by me as to-day, and my understanding of it is after a pretty severe lesson. I have now in my possession upwards of 2000 models of the mouths and teeth of patients who have passed through my hands, in many of whose cases I have models taken year after year. The changes that take place before extraction and after extraction are thereby before our eyes. These illustrations of the conditions at varying dates have shown me that the Creator knew a great deal more than we do about how to make room; for the cusping of teeth, upper and lower, with each other is an absolutely essential thing if the mastication of our food is to be performed as Nature intended. One of our most eminent orthopedic dental surgeons admitted that the question of occlusion had not been prominent in his mind, that his work had been—up to the period at which he spoke—solely for the appearance of the teeth and not necessarily for utility. Starting with the principle that the arch generally needs to be extended and that the cusping of teeth will almost always hold them in place once they have been gotten there, I inferred that it was much easier to do for a growing child what was required than to wait until that child was more nearly formed, and Dr. Williams' plan of alternate rest and work has always been operative with me whenever such work has been undertaken with children. I have been very much pleased that these children have never even complained of pain.

Dr. Talbot's definition of degeneracy does not altogether apply to this little chap. I would sometimes address him in German, French or English and he would answer with perfect facility. He is as well versed in lessons as a boy of fourteen. I have never seen his superior in intelligence. I acknowledge that he is nervous and that he is delicate. He is a boy who seems to be standing in a precarious condition and his mother knows it full well. She, too, is one of the brightest women I ever met.

Regarding Dr. Latham's question, I am not able to answer whether the development of the teeth was in the way she mentioned. In this case I am quite sure that the teeth developed after removal of the obstructions with much greater rapidity than before. What the condition of their roots may be, of course, no one knows.

Physicians Advertise—A Lay Opinion.—Concerning the sickness of the King of England, the *Christian Advocate* remarks: "The papers have fairly swarmed with interviews from physicians, whose code of medical ethics forbids them to advertise."

ELECTRIC OZONATION IN NEURALGIA.*

G. LENOX CURTIS, M.D.
CONSULTANT TO THE RED CROSS HOSPITAL.
NEW YORK CITY.

The term neuralgia may be applied to all pains found in animal tissue that may be regarded as being nearly or quite in a perfect physical condition, especially if the pains have become chronic. To designate the locality of the cause of pain, which may or may not be in the region of pain, and leaving out what may be regarded as functional disturbance, we may mention, for illustration of my subject, facial neuralgia, gastralgia, myalgia, as of the pain in myelitis and pyelitis, all of which are only different phases of disturbances called neuralgia. The locality of the keenest pains may be in the parts suggested by those names or they may be at greater or less distance. Neuralgia in and about the face and mouth is generally easily determined, but there are cases where there seem to be complications.

Other forms of pain, such as gout, rheumatism, sciatica and lumbago may all come under the general terms of affections of the nerves and may all be treated in connection. But this would open a wider field than I desire to discuss at this time.

The pain about a tooth in one jaw may cause pain in the opposite jaw. It is well known that a defective lower side tooth often causes pain in the upper tooth. But it may be said that in cases of pulpitis, gingivitis, periostitis and pericementitis, the pains are found in the parts involved.

As these latter forms of neuralgia are probably the ones that will most interest this section of medicine, I will confine my remarks mainly to them. My aim is to call the attention to the power of electric ozonation; its effect upon this disease I regard as a comparatively new phase of practice in medicine.

EXPLANATION OF THE REMEDIAL ACTION.

After three years of experimental work, I called the attention of the medical profession, in October, 1901, to it in a paper read before the Academy of Medicine in New York.[1] In that paper the plan by which ozone may be properly made, and at the same time enable the practitioner to force it directly into and through the affected parts, was clearly set forth. I also explained its effects and gave report of cases in which the stimulating and ozonizing speedily re-established the normal functions. When nerve force and proper nutrition are established and equilibrium is re-established a high condition of health is the result. I do not wish to be understood as saying that by electric ozonation a normal physical condition can be re-established in a diseased organ, such as follows the loss of tubules in chronic nephritis, abscesses of the lungs and liver, or a cicatrix in a nerve trunk following a traumatic lesion or calcaric deposit in the pulp of a tooth. But I do imply that by electric ozonation nerve force and circulation can be sufficiently re-established in the parts, to lead to health and the parts be left in the best condition possible under the circumstances.

METHOD OF APPLICATION.

The mechanism that will make this remarkable element is a system of coils of fine wire, so arranged as to change the quality of the current of electricity, from the street, into the wonderful therapeutic agent.

One of the changes in the electric current effected by passing through the machine is increase of voltage, while

* Read at the Fifty-third Annual Meeting of the American Medical Association, in the Section on Stomatology, and approved for publication by the Executive Committee: Drs. G. V. I. Brown, M. H. Fletcher and R. R. Andrews.

1. N. Y. Med. Jour., Jan. 18-Feb. 1, 1902.

at the same time the amperage is reduced, thus causing a high tension current. The capacity of this machine is 1,000,000 volts and about 1/50 of an ampere, capable of producing a large amount of ozone. The higher the voltage and the lower the amperage, the less is the degree of shock experienced by the patient. It re-establishes nervous functional activity, thus stimulating tissue repair.

The current from this machine, which seemingly has but a single pole, passes through the body and then escapes into the atmosphere, which may be regarded as a negative pole.

Among the advantages of this machine, is easy handling, that is, it is easily carried about when traveling. The fact that it may be used wherever there is an incandescent current, without its being affected by conditions of the weather, is an important virtue.

REFLEX NEURALGIAS.

Removing the cause of neuralgia generally stops pain, —for illustration: the removing of a pulpstone, necrosed bone, an irritating filling, gas in pulp chamber or alveolar abscess pressure—but there are cases that require the element of greater length of time, before unanimity is established and electric ozonation tends to shorten this time.

Among other disturbances of the nervous system that may be mentioned are those that cause hemiplegia and catalepsy. But association with other disturbers sometimes embarrass diagnosis. I recall a case of hemiplegia supposed to be from brain lesion that was completely dissipated after the removal of an alveolar abscess. I also recall a case of catalepsy, from the same cause. Slight irritation may not cause neuralgia, when vital force is at par, but when vitality is low, neuralgia in most any part of the system may continue and lead to neurasthenia.

NEURALGIA FROM ASTHENIA.

While investigating the cause of pain, for the purpose of giving relief, the practitioner generally believes that the pain is the result of a lesion. Should lesion not be found, I think that the practitioner should never operate for relief, until a careful and exhaustive examination of the patient's system is made and he has ascertained the full conditions of health. This examination may show that the patient is in a very debiliated condition, and the vitality so low that there is not sufficient supply of nerve force for a high condition of health. Under such circumstances the overworked and inflamed nervous system needs assistance and as pain is nature's voice calling for help, it may be regarded a blessing in disguise.

ILLUSTRATIVE CASES.

To illustrate the importance of making careful diagnosis and to show how we may help nature, I will present two cases, recently in my practice, one in which a lesion was determined, the other in which a lack of vital force was the cause of the pain. Mr. I., aged 80, had suffered for twenty-five years from facial neuralgia of a very acute character. All his teeth, one after another, had been extracted, without giving any abatement of the excruciating agony. Under these conditions his health gradually failed, and the paroxysms of pain became more and more intense until continued agony made his life hardly worth preserving. This was his condition when brought to me by his physician for consultation, regarding advisability of resection of the lower dental nerve. On a careful examination, I found that his nervous system was in a very feeble condition, and with its present capabilities would not generate enough nerve force to furnish half the vitality necessary for even a moderate condition of health.

It was clear to me that his nervous system must be awakened and made more vigorous, before improvement could be seen. I suggested a course of ozonation, and the advice was acted on. After two weeks of daily ozonation his general health had improved to a marked degree, and with this change rapidly came the gratifying result —entire freedom from pain. This ozonation treatment was continued two weeks longer, when sound health was firmly established.

This highly satisfactory condition lasted a year, when the death of a dear member of his family caused him great sorrow, and necessitated a long and fatiguing journey by railroad. The grief and journey combined so exhausted his vitality that neuralgic pain was again felt in full force. He came to me again for treatment and was treated by the same method, and was again restored to vigorous health. He now continues to live and enjoy life free from pain.

Another case was that of Mrs. E., who had for twelve years before I saw her been subject to long periods of suffering from neuralgia in one side of the face. She had, one at a time, all the molars extracted without gaining relief. During the examination I asked her what had been the condition of her general health. She replied that her "health was good," but her nervous, anxious expression contradicted her assertion, and showed clearly the irritable state of her system. I continued my examination and concluded the cause to be pulp stones in the upper bicuspids of the affected side, and advised the removal of the pulps, or possibly extraction of the teeth. I found her vitality very low, none of the functions of her organs performing regularly, thus showing that a patient's word can not always be relied on in such matters. In no sense was she a well woman.

She would not consent to surgical treatment that seemed proper, but after the ozone treatment was suggested, she concluded to accept it. After the second treatment all signs of pain in the parts disappeared, and after a month of treatment her general health was seemingly entirely restored, and for two months was free from pain. But later contracting a violent cold, and the bicuspids becoming troublesome with slight paroxysms of pain, she again came to me for relief. After several ozone treatments all pain disappeared. When last I saw her, she was in good health, and had no returns of the neuralgia. I believe, however, that until the pulp stones are removed she will occasionally have a recurrence of the pains, when her vitality runs low. I may mention that previous to the time that she came to me, she was considering the resection of the Gasserian ganglion.

I have observed similar results in other cases.

7 West Fifty-eighth Street.

DISCUSSION.

DR. J. L. WILLIAMS, Boston—What is the process of ozone treatment?

DR. CURTIS—Briefly stated, the process of treatment consists of forcing the ozone into and through the body by means of Geisler vacuum tubes. These tubes are of various shapes and adapted to the parts to be treated. The ozone, which I believe is electricity, as it passes through the body oxidizes the pathogenic conditions not only in the tissues, but in the blood. It re-establishes circulation in a congested part and promotes nutrition, so that the blood is very quickly purified and new blood rapidly generated.

DR. WILLIAMS—Is this apparatus to be seen at any special place?

DR. CURTIS—I brought one here to demonstrate at this meeting, but as there is no current in this hall, I am unable to

show it. I have one at my office which can be seen. I understand it is soon to be put on the market.

Dr. Bogue—Is not ozone produced by the atmosphere?

Dr. Curtis—One of the principal elements of the atmosphere is ozone. Nascent ozone is said to be produced by a strong current of electricity coming in contact with the atmosphere, breaking up the molecules of oxygen, thus liberating the ozone. By this apparatus, it seems as if ozone itself was given off the wire brush used in generating it.

Dr. G. F. Eames, Boston—I have always understood that ozone, an excess of oxygen, is produced by the electric current acting on the atmosphere, and it is easy to see how it may be taken into the lungs by inhalation, and thence into the blood and to all the tissues through which it circulates, but it has not been proven to me that the ozone passes directly through all the tissues of the body.

Dr. Curtis—My reasons for believing that ozone passes into and through the body lies in the fact that where there is deep-seated congestion, such as in meningitis, pulmonary and hepatic inflammations, or in abdominal tumors, pain is felt in these parts when the electrode is placed over them, and it is not noticeable when these parts are normal. After several treatments and the inflammation has subsided, no pain is realized. Again, when the electrode is placed over the lungs the patient will taste the ozone in a few seconds, and after the usual treatment, which lasts about half an hour, the odor of ozone may be detected on the breath for some time, and it is especially noticeable on the skin where the electrode has been applied.

Dr. Eames—The disappearance of pain would not prove to me that this ozone is driven through the tissues because surface applications will often cause pain to disappear.

Dr. Curtis—I doubt whether I can satisfactorily answer Dr. Eames' question. There seems to be no other means of determining whether the current passes through the body except those I have mentioned. It is generally supposed that electricity only traverses the surface of the body.

Dr. William Knight, Cincinnati—We all know the stubborn character of real neuralgia and that it shows a condition of the nerve which is not normal. Innumerable methods have been adopted in their time and in special cases are of service to-day. The object of all methods is first to remove the local irritation and then correct the systemic predisposing condition. I would hesitate to believe that pain due to inflammation, to bacterial origin, or pain of a neuralgic character is to be suddenly wafted away by something that is called ozone. But, if we have a method which can cure this terrible disease of neuralgia so readily, it is a grand thing, and I would compliment any gentleman who has made such a discovery. Up to the present time the condition has often baffled the ingenuity, research and clinical observation of men in this country and abroad.

Dr. Curtis (in closing)—I regret my inability to demonstrate my device for producing ozone at this time. I hope, however, to be able to exhibit the machine to-morrow before the Section on Medicine, where I am to read a paper entitled "The Influence of Ozonation on the Blood." In this paper, I will demonstrate by means of microphotographs the rapid pathologic changes produced in the blood.

It has been proved that ozonation will quickly alleviate pain, improve the circulation and reproduce nutrition and vitality. You will readily understand by this that it is equally effective in the treatment of many other diseases, and it is surprising to see how quickly a patient will recover. A patient who was recently treated for tuberculous meningitis, was relieved of a severe toothache which had continued for two months (for which there was no apparent cause) after the second treatment. When the electrode was first applied to the head, the pain was intense. This gradually subsided.

Value of Lumbar Puncture in Diagnosis of Intracranial Complications of Otitis.—Braunstein of Halle states that a diffuse purulent meningitis can be diagnosed without fail by lumbar puncture. An opalescent cloudiness of the fluid is almost certain evidence of a tubercular meningitis even although no bacilli can be discovered.—*Archiv f. Ohrenh.*

RESULTS OBTAINED IN THE TREATMENT OF ACNE BY EXPOSURE TO THE X-RAYS.

R. R. CAMPBELL, M.D.
PROFESSOR OF SKIN AND VENEREAL DISEASES, CHICAGO POLICLINIC.
CHICAGO.

Two effects produced by the *x*-rays, namely, the checking of pus formation and the atrophy produced in the follicles, suggested its use in the treatment of acne. The results obtained have been sufficiently gratifying, in my opinion, to justify the report of the following cases:

Case 1.—Miss E. R., aged 20, had been under constitutional and local treatment for three months, without any appreciable improvement in the local condition. Early in January, 1902, the *x*-ray exposures were begun. She was given three exposures weekly of ten minutes each, with the tube 15 to 20 cm. distant. After two weeks there was manifest improvement and the exposures were reduced to two sittings weekly; by the end of February no active lesions or comedones could be detected, and the exposures were further reduced to once weekly until the end of March when all treatment was discontinued, and from that time to the present writing no relapse has taken place. No dermatitis or erythema was produced in this case at any time.

Case 2.—Mrs. S. A., aged 33, brunette, after other treatment for an indurated acne of the chin had been tried for two months without avail, was on Jan. 3, 1902, exposed to the influence of the *x*-rays for the first time. Exposures were made three times weekly for a period of ten minutes each at 15 cm. distance, until February 1, when all active lesions had entirely disappeared. The exposures were then reduced to one sitting weekly until March 1, since which time no exposures have been made and no recurrence has taken place. The skin is absolutely free from disease and remains soft, smooth, and perfectly natural. In this case a slight passive pigmentation but no erythema was produced.

Case 3.—Miss J. T., aged 17, blonde, presented herself with a simple acne of marked severity, an unusual number of inflammatory papules, pustules and comedones were present. The disease had persisted for three years, and was the cause of marked disfigurement. Patient's general condition was good. Beginning January 15 she was given three exposures weekly of 10 minutes each at 10 to 15 cm. until March 1, when the face was almost entirely free from eruption. From this time on the exposures were made less frequently, once weekly, until May 1, when the eruption had entirely disappeared and no recurrence has since taken place.

Case 4.—Miss M. R., aged 18, referred to me by Dr. E. I. Kerlin, has been under my observation off and on for two years for a very severe acne eruption, consisting of comedones, inflammatory papules and pustules involving the forehead, both cheeks, the nose and chin. No particular improvement as the result of treatment had been noted, so March 1, 1902, the first exposure to the *x*-rays was given; after nine exposures of 10 minutes each at 10 cm., the face had entirely cleared up with the exception of not more than a half-dozen small papules on the forehead when last seen July 1, 1902. An interesting feature in this case was the existence of a goiter which, too, has almost disappeared, apparently due to the effects of the *x*-rays as no internal or external medication was used while under the *x*-ray treatment.

Case 5.—Miss G. B., aged 19, blonde, acne eruption on the face, neck and back existing about 15 months. Between March 1 and April 1 she was given 14 exposures of 10 minutes each at 15 cm., with the result that the eruption disappeared except about the borders of the hair on the neck which was not exposed owing to the known depilatory effects of the *x*-rays.

Case 6.—M. C., aged 18, referred to me by Dr. J. E. Colburn; aggravated case of acne indurata existing for 2 years and involving the whole face. Nothing could be found in the patient's general condition or mode of living to account for either the existence or the severity of the eruption. From April 15 to March 28, 19 exposures to the *x*-rays were made, resulting in the disappearance of the eruption with the possible excep-

tion of a few comedones appearing now and then, but the skin is soft, clean and smooth.

CASE 7.—Mrs. D., aged 29, brunette, severe acne of the forehead, cheeks and chin, with rosacea of the nose; eruption existing to greater or less degree for 12 years, the face and nose never in this time presenting an appearance even approaching a normal or healthy condition. Between April 22 and June 4, 1902, twenty exposures to the *x*-rays were given 10 minutes each at 10 to 15 cm. Exposures were made every other day and resulted in the entire disappearance of the eruption. No dermatitis or erythema was produced in this case, and no tendency to recurrence can be noticed at this writing.

CASE 8.—Miss O. D., aged 29. Ten or twelve years ago eruption began as comedones, followed by inflammatory papules, pustules and tubercles. Has been under treatment at various clinics and by numerous doctors ever since, with no appreciable improvement. The patient was given her first *x*-ray treatment March 6, 1902, exposures of 10 minutes' duration with the tube at a distance of from 10 to 15 cm. In this case the eruption has entirely disappeared with the exception of a few small papules on either side of the chin.

CASE 9.—E. G., aged 25, brunette; eruption consisted of comedones, papules and pustules. It began 15 months ago on the chin and at present time involves the entire face. This patient was given eleven 10-minute exposures between Jan. 17 and Feb. 12, 1902, at which time the whole face presented a smooth, clean, and healthy appearance and at last reports, which was two weeks ago, no recurrence had taken place.

CASE 10.—Mr. W. G., aged 18; indurated acne of the chin existing two years, not severe, but did not improve under ordinary treatment; was given eight exposures of 10 minutes each between February 20 and March 18, resulting in the total disappearance of the eruption with no recurrence up to present writing.

CASE 11.—Mr. H., aged 31, was referred to me by Dr. T. W. Miller some years ago for an eruption on the cheeks and nose consisting of comedones, papules, some few pustules and dilated capillaries and erythema. The eruption resisted all treatment and the patient was lost sight of until January, 1902, when he again presented himself for another effort towards relief. The influence of the *x*-rays was immediately resorted to, and between January 14 and April 12, twenty-five ten-minute exposures had been made, resulting in almost the entire disappearance of the eruption. On the date of his last visit, June 27, the face was perfectly clean and healthy in appearance.

CASE 12.—Miss K., aged 19, eruption of comedones, indurated papules and few pustules involving both cheeks, forehead and nose; has existed for 1½ years and has absolutely resisted all attempts at cure with the ordinary remedies at our command. She was placed under exposures to the *x*-ray April 3 for the first time, and between this and May 6 was given 15 exposures of 10 minutes each with the tube at a distance of 15 cm. from the seat of exposure. The result was the entire disappearance of the eruption and no evidence of recurrence can be detected.

CASE 13.—Mrs. L., aged 37; severe case of rosacea with comedones, and deep-seated pustules about the nose and extending on to the cheeks; has existed for 4 years; previous treatment has been without effect; general condition very good with the exception of occasional attacks of rheumatism in the arms and wrists. Between Feb. 7 and March 15, 1902, sixteen exposures of 10 minutes each at 15 cm. were made, resulting in the absolute disappearance of the eruption with no evidence of recurrence when the patient was last seen, June 18, 1902.

CASE 14.—Miss M., aged 24, blonde, has had for seven years a very severe indurated acne involving the forehead, cheeks and chin. The lesions though indolent showed but little tendency to the formation of pus. The menstrual periods are regular and free from pain, but the flow is scant. Bowels constipated at times, appetite and digestion good; with this patient previous treatment had been without effect. During January, February and March she was given 33 exposures of 10 minutes each to the *x*-rays at 10 to 15 cm., with the production of a slight dermatitis, but without any improvement in the local condition. I felt I had finally met with failure and advised the discontinuance of the treatment; the patient reluctantly consented and she returned to her home; on June 24 she wrote me that the eruption on the forehead and cheeks had disappeared, but the lesions on the chin still remain, though somewhat improved.

CASE 15.—Miss K. S., aged 15. Two years ago eruption consisting of comedones, papules, and pustules appeared on the chin and forehead and grew gradually worse until eight months ago, when patient came under my care. At this time the eruption involved the entire face; the effects of treatment were without avail. On March 19, 1902, the first exposure to the influence of the *x*-rays was given. These were continued every other day for ten minutes each sitting until May 5, during which time 21 exposures were made, resulting in the entire disappearance of the eruption with the exception of a very few papules on the forehead and which may be found on any person at times.

The above are not selected cases, but were simply taken as they came along, and none of them were subjected to either internal treatment or external applications while under exposure to the *x*-rays. The uniformity of the results obtained, therefore, are all the more striking, and, I think, are conclusively shown to be due entirely to the effects of the *x*-ray light. Case 14 I think serves to illustrate the accumulative effects of the *x*-rays and to emphasize the necessity of carefully watching all patients subjected to the influence of the *x*-ray for any reason whatsoever, lest the results which might be gratifying and highly satisfactory prove, on the contrary, to be not only seriously unsatisfactory, but disastrously injurious. In all of these cases I have used a medium soft tube with weak light, making slight variance in the time of exposures and the distance of the tube from the seat of operation.

204 Dearborn Street.

V 39
1902

THE PROPOSED CONSTITUTION AND BY-LAWS FOR COUNTY SOCIETIES.

This Committee was continued at the Saratoga meeting of the Association with instructions to prepare a constitution and by-laws for county societies in conformity with and in continuation of the general plan of organization already adopted for the Association and for state societies.

In submitting the results of its labors the Committee desires to explain that, while the provisions contained in the constitution proposed are deemed essential to good organization, as will be readily seen, some of the provisions contained in the by-laws are suggestive and educational in character, and may not be applicable to every county or section. In such cases these may be omitted, or others more appropriate substituted for them. In any event the high ideals for the individual physician, and the spirit of courtesy and kindness which should govern him in his dealings with his professional neighbors, as here set forth, are commended for thoughtful consideration.

Serious illness has deprived the Committee of the valuable assistance of Dr. Simmons in the latter part of this work. It is sure, however, that the general plan and most of the provisions are in harmony with his ideas. This is shown by the following paragraph penned by him at the conclusion of the report submitting the constitution and by-laws for state societies, with which appropriate quotation this report is closed:

"Much in the by-laws submitted may be regarded as 'preaching,' but it is inserted advisedly with the sole object of arousing in the mind of each medical society

member a desire for the accomplishment of greater ends than have been permitted by the customs and forms of the past. The Committee earnestly desires that the state committees will continue the work of perfecting organization, actuated by that love for our profession which its ideals demand. With the medical profession well organized, medical science will more readily step to its high place, and the profession which lives in its atmosphere will have that power and respect in the community that is its right."

J. N. MCCORMACK,
P. MAXWELL FOSHAY,
GEORGE H. SIMMONS,
Committee.

CONSTITUTION.

ARTICLE I.—NAME AND TITLE OF THE SOCIETY.

The name and title of this organization shall be the ———— County Medical Society.

ARTICLE II.—PURPOSES OF THE SOCIETY.

The purposes of this Society shall be to bring into one organization the physicians of this county; and by frequent meetings and full and frank interchange of views to secure such intelligent unity and harmony in every phase of their labor as will elevate and effectuate the opinions of the profession in all scientific, legislative, public health, material and social affairs, to the end that it may receive that respect and support within its own ranks and from the community to which its honorable history and great achievements entitle it; and with other county societies to form the ———— State Medical Association, and through it, with other state associations, to form and maintain the American Medical Association.

ARTICLE III.—COMPOSITION.

Every physician residing and practicing in ———— and legally registering as such, and who is in good professional standing, shall be eligible for membership.

ARTICLE IV.—MEETINGS.

Regular meetings shall be held monthly (or oftener) at such time and place as may be determined by the Society.

ARTICLE V.—OFFICERS.

The officers of this Society shall consist of a President, Vice-President, Secretary, Treasurer and Delegates. These officers, except the Delegates, who shall be elected for two years, shall be elected annually for a term of one year, and until their successors are elected and installed.

ARTICLE VI.—FUNDS AND EXPENSES.

Funds for meeting the expenses of the Society shall be raised by annual dues, special assessments and voluntary contribution. Funds may be appropriated by vote of the Society for such purposes as will promote its welfare and that of the profession.

ARTICLE VII.—CHARTER.

The Society shall apply to the State Association for a charter at the meeting at which this constitution and by-laws are adopted, or as soon thereafter as practicable, and the charter shall be kept in the custody of the secretary.

ARTICLE VIII.—TRUSTEES AND INCORPORATION.

The Society shall have authority to appoint a Board of Trustees and to provide for articles of incorporation whenever it may deem the same necessary.

ARTICLE IX.—AMENDMENTS.

The Society may amend any article of this constitution by a two-thirds vote of its members at any regular meeting, provided that such amendment shall have been read in open session at two previous regular meetings and shall have been sent by mail to each member ten days in advance of the meeting at which final action is to be taken.

BY-LAWS.

CHAPTER I.—MEMBERSHIP.

SECTION. 1. The Society shall judge of the qualification of its members, but, as it is the only door to the State Medical Association and to the American Medical Association for physicians within its jurisdiction, every reputable and legally qualified physician in ———— county who is practicing or who will agree to practice non-sectarian medicine shall be entitled to membership.

SEC. 2. Applications for membership shall be made in such form as may be provided, and all elections for membership shall be by open ballot or by yea and nay vote, and a four-fifths majority of those present shall be necessary for an election.

SEC. 3. Any physician in the county who may feel aggrieved by the action of the Society in refusing him membership, or in suspending or expelling him, shall have the right of appeal to the Council of the State Association.

SEC. 4. Any physician living near the county line, or for other reasons satisfactory to this Society, or upon the decision of the Council of the State Association, upon appeal, may hold his membership in another county society.

SEC. 5. When a member in good standing moves to another county in this or some other state, he shall be entitled to a transfer card to the society into whose jurisdiction he moves, without expense, upon payment of his dues to the date of his removal from this county.

SEC. 6. All members shall be equally privileged to attend all meetings and take part in all proceedings, and shall be eligible to any office or honor within the gift of the Society, so long as they conform to this constitution and by-laws, including the payment of the dues to this Society and to the State Association: Provided, that no member under sentence of expulsion shall take part in any of the proceedings, or be eligible to any office until relieved of such disability.

SEC. 7. Kindly efforts in the interest of peace, conciliation or reformation so far as possible and expedient, shall precede the filing of formal charges affecting the character or standing of a member, and the accused shall have opportunity to be heard in his own defense in all trials and proceedings of this nature.

CHAPTER II.—POWERS AND DUTIES.

SECTION 1. This Society shall have general direction of the affairs of the medical profession of the county, and its influence shall be constantly exerted to better the scientific, material and social condition of every physician within its jurisdiction. Systematic efforts shall be made by each member, and by the Society as a whole, to increase the membership until it embraces every reputable physician in the county.

SEC. 2. A meeting shall be held at — p. m. on the — in each month (or oftener). — members shall constitute a quorum. The officers and committee on program shall profit by experience and by the example of other similar societies, and strive to arrange for the most attractive and successful proceedings for each meeting. Younger members especially shall be encouraged to do post-grad-

uate and original research work, and to give this Society the first results of such labors. Crisp papers and discussions and reports of cases shall be arranged for and encouraged, and tedious and profitless proceedings and discussions shall be avoided as far as practicable.

SEC. 3. Agreements and schedules of fees shall not be made by nor in this Society, but at least one meeting during each year shall be set apart for a full and frank discussion of the business affairs of the profession of the county, with the view of adopting the best methods of the most successful members as rules for the guidance of all. In all proper ways the public shall be taught that business methods and prompt collections are essential to the equipment of the modern physician and surgeon, and that it suffers even more than the profession where this is not recognized.

SEC. 5. The Society shall endeavor to educate its members to the belief that the physician should be a leader in his community, in character, in learning, in dignified and manly bearing, and in courteous and open treatment of his brother physicians, to the end that the profession may occupy that place in its own and the public estimation to which it is entitled.

CHAPTER III.—OFFICERS.

SECTION 1. The officers of the Society shall be elected at the (April) meeting in each year, which shall be known as the annual meeting. Nominations shall be made by informal ballot, and all elections shall be by ballot. The vote of a majority of all the members present shall be necessary to an election.

SEC. 2. The President shall preside at all meetings of the Society, and perform such other duties as custom and parliamentary usage may require. He shall be the real head of the profession in the county during the year, and it shall be his pride and ambition to leave it in better condition as regards both scientific attainments and harmony than at the beginning of his term of office.

SEC. 3. The Vice-President shall assist the President in the performance of his duties, shall preside in his absence, and upon his death, resignation or removal from the county, shall succeed to the presidency.

SEC. 4. The Secretary shall be the chairman of the Committee on Program and Scientific Work. He shall record the minutes of the meetings and receive and care for all records and papers belonging to the Society, including its charter from the State Association. He shall keep account of and promptly turn over to the Treasurer all funds of the Society which may come into his hands. He shall make and keep a correct list of the members of this Society in good standing, noting of each his correct name, address, place and date of graduation, and the date of the certificate entitling him to practice medicine; and in a separate list he shall note the same facts in regard to each legally qualified physician in this county not a member of this Society, and it shall be his duty to send a copy of such lists, upon blank forms furnished him for that purpose, to the Secretary of the State Association, at the close of the annual meeting for the election of officers in each year. In making such lists he shall endeavor to account for each physician who has moved into or out of the county during the year, stating, when possible, both his present and past address. At the same time, and with his report of such lists of members and physicians, he shall transmit to the State Association his order on the Treasurer for the annual dues of the Society, of two dollars for each member in good standing.

SEC. 5. The Treasurer shall receive all dues and money belonging to the Society from the hands of the Secretary or members, and shall pay out the same only upon the written order of the Secretary.

SEC. 6. The Delegates shall attend and faithfully represent the members of this Society and the profession of this county in the State Association, and shall make a report of the proceedings of that body at the next annual meeting of this Society.

CHAPTER IV.—COMMITTEES.

There shall be a standing Committee on Program and Scientific Work, of which the Secretary shall be chairman, a Committee on Public Health and Legislation, a Committee on Social Entertainments and Refreshments, each to consist of three members, and such special committees as may be deemed necessary.

CHAPTER V.—FUNDS AND EXPENSES.

The annual dues for each member of this Society shall be (three) dollars, to be paid on or before the annual meeting for the election of officers in each year. (One) dollar of such dues shall be used to defray the expenses of this Society, and two dollars shall be forwarded by the Secretary, with his annual report, to the State Association. Any member who shall fail to pay his dues on or before the date named shall be held as suspended in this Society, and in the State Association, and his name shall be placed on the list of non-affiliated physicians in the report to the State Association for that year, and shall so remain until such disability is removed.

CHAPTER VI.—ORDER OF BUSINESS.

The order of business shall be as follows:

1. Call to order by the President.
2. Reading of minutes of last meeting.
3. Clinical cases.
4. Papers and discussions.
5. Unfinished business.
6. Miscellaneous business.
7. Announcements.
8. Adjournment.

CHAPTER VII.—RULES OF ORDER.

The deliberations of this Society shall be governed by parliamentary usage as contained in Robert's Rules of Order, unless otherwise determined by vote.

CHAPTER VIII.—AMENDMENTS.

These by-laws may be amended at any regular meeting by a two-thirds vote therefor, provided, that such amendment has been read in open session at the preceding regular meeting and a copy of the same has been sent to each member by the Secretary ten days in advance of the meeting at which final action is to be taken.

Incubators on New Principles.—Tissier has devised a simple and inexpensive incubator which is heated exclusively by the chemical action of a supersaturated solution of acetate of ammonia or soda. This keeps an even temperature in the incubator for ten to twelve hours. In order to prevent waste of the warmth, the entire incubator except the top is packed in cotton. This exclusion of the light may prove beneficial rather than otherwise for premature infants. Fochier's incubator is constructed to be heated by electric lights with an automatic attachment which turns on or off the lights according to the temperature. It is possible thus to obtain automatically an even temperature at all times. Bouchacourt suggests that it might be advisable to exclude all but red light in incubators, as Finsen has established the stimulating action of the chemical rays. In darkness or in red light the infant's condition would approximate more closely that of uterine existence and of hibernating animals.

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THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION

61 Market Street : : Chicago, Ill.

Cable Address: "Medic, Chicago"

Subscription price: Five dollars per annum in advance

SATURDAY, AUGUST 9, 1902.

MEDICAL LEGISLATION.

An address recently delivered by Dr. S. D. Van Meter, before the Colorado State Medical Society, is noteworthy in that it very ably discusses certain points in regard to medical legislation from the standpoint of one who has evidently thought much and well upon the subject and whose experience qualifies him to speak, as it were, with some authority. As secretary of the Colorado Board of Medical Examiners he has administered effectively what some of us may deem a defective law, and, while we may not agree with all his opinions, we must recognize that they are entitled to respectful consideration. One point in which many will differ with him is his position as to the question of the acceptance of diplomas from recognized schools as a condition for license instead of an examination, but we believe that his recommendation that examining boards should have more discretionary power has its merits. The requirement that a physician or surgeon of world-wide reputation should be compelled, on changing his residence, to pass the same examination as a recent graduate is practically a *reductio ad absurdum* argument against the rigidity of some of our state laws. There are, however, arguments that for the present at least are likely to have more weight, and the existing strict rules will probably continue in force in some states for the present. It does seem, however, that a little more elasticity in the laws as regards the admission to practice of men of standing and reputation would be a rational modification. Dr. Van Meter does not see much prospect of relief from the proposed National Board of Medical Examiners, but thinks its influence would be good and therefore rather favors it, at least by implication. If a license from such a board was made by law a prerequisite for any medical office of honor or profit under the general government, it could not be altogether ignored, even in the commonwealths that are the most particular as to their own requirements.

What Dr. Van Meter says in regard to the inspection, classification and recognition of medical colleges should be endorsed by every one. He holds that if state boards did their full duty it would eliminate the unworthy ones and raise the standard of medical education generally. The importance of going back behind the diploma and insuring higher qualifications in those who enter on the study of medicine is especially emphasized by him. The state authorities, or, as he suggests, the state superintendent of public instruction, might be authorized to see that no educationally or morally disqualified person is allowed to matriculate. A further valuable suggestion, but one that we fear will not soon be generally effective, is that the medical profession make it its duty to see that no charter is granted for any medical educational institution, the actual need of which does not exist beyond the shadow of a doubt.

Lastly, he takes up the subject of the composition of registration boards, a large question that will require the reformation of our political methods in some parts of the country before it can be altogether satisfactorily solved. It depends on the profession whether competent and judicially-minded men are chosen for these positions or merely political workers or favorites. So far we believe the abuses that have existed in this regard are almost insignificant; we should see that they are made impossible. We have given only a brief summary of some of the more salient views and suggestions of Dr. Van Meter's address, which appears to us as one that has, better than most other statements that have thus far appeared, reviewed the problems of medical legislation in this country. It seems, therefore, one to which it is of advantage to call the attention of the profession.

WHAT IS THE PRACTICE OF MEDICINE?

In a recent issue of THE JOURNAL we published the full text of the late decision of the Alabama Supreme Court in regard to the status of osteopaths as practitioners of medicine. It is a valuable legal precedent, and we are pleased to note another somewhat similar decision of the Supreme Court of Illinois in the case of The People of the State of Illinois vs. Joseph P. Gordon. The appeal was carried up from Winnebago county, where the defendant, a magnetic healer, had won both in the Circuit and the Appellate courts, when prosecuted for the illegal practice of medicine, his ground of defense being that he did not use medicine or surgery. In his own testimony he admitted that he used manipulations to relieve the "contracted condition of the nerves," and the court very rationally held that this did not come under the exemption of the Illinois statute of treatment by mental and spiritual means alone. In the summary of the Illinois law in THE JOURNAL last November, the Appellate Court decision in this case was referred to, and it is gratifying to see it thus reversed by the higher tribunal. The decision says: "But it is contended that the defendant in this case is shown by the testimony to be exempt from the operation of the statute by the last clause of the proviso to section 7; that is, that he is a person 'who ministers to or treats the sick or suffering by mental or spiritual means, without the use of any drug or material remedy.' We are unable to see how, under his own evidence, this position can be maintained. It is true, he does not use 'drugs or other material remedy,' neither does he treat the sick or suffering by mental or spiritual means, and therefore whether the word 'material' is to be construed as meaning other treatment similar to the use of drugs is wholly immaterial. Very clearly this provision means that those who

pretend to relieve the ailments of others by mere mental or spiritual means shall not be considered within the act; but if the defendant, under the proof in this case, can bring himself within that exception, then every one who treats diseases without administering medicine, either externally or internally, can also be brought within the exception. Few, perhaps, if any, physicians attempt to treat the sick and suffering without appealing to the mental faculties, to a greater or less degree, in aid of the remedies they apply or prescribe; but that is not treating the sick by mental or spiritual means."

The decision fairly covers, as it appears to us, the same class of cases as were considered in that of the Alabama court, and is, if anything, a little more comprehensive in its scope. The law, it says, is to protect the sick and suffering and the community at large against the ignorant and unlearned who hold themselves out as possessing special skill in the treatment of disease and advertise as physicians without having the needed knowledge. The decision is a good example of the application of common sense to the interpretation of the law, which seems to be sometimes lacking in the decisions of the lower courts. It settles, moreover, two other cases similarly appealed from the subordinate courts, and will, we trust, stand as a lasting authority.

TESTING FOOD PRESERVATIVES.

The question of whether the additions to food substances, either as adulterations or preservatives, are injurious to the consumer is a living one of to-day. In the past we have gone on using whatever is set before us—as many of us do still—asking no question, if not for conscience, for convenience sake. It is very uncomfortable to be in a continuous state of worry about one's food, and only confirmed dyspeptics thus indulge themselves. In the interest of the public health, however, it is the duty of the state to see that its citizens are not unwholesomely nourished, and it is to the fact that we believe it to a greater or less extent performs this duty, that much of our ease of mind as regards our food is secured. That dealers are likely to suffer if detected in harmful adulteration is a comforting reflection, and we go ahead in our faith that the laws will be duly enforced.

As proof of the care that the powers that be exercise for the health of the people comes the statement that the Department of Agriculture is about to institute a series of experiments on healthy individuals to determine whether certain preservative and cosmetic substances added to food products are dangerous to health. Borax, for example, which has been recently the subject of an extended investigation and controversy in Germany as to its effects when used as a meat preservative, will be one of the substances tested, and others will follow. From the data thus acquired it is expected that more correct conclusions as regards the effects on the human system can be deduced than have obtained from the experiments on cats, dogs and rabbits and from the very limited experimentation on man by the previous investigators. It has been suggested that these experiments, carried out as intended on healthy college students, will not represent the actual conditions sufficiently, the harmful effects, for example, of the agents tested on the weak and sickly or even on the average members of the community. This objection, however, loses its force when it is considered that the experiments are to be conducted under the supervision of experts, who can be expected to discriminate in their observations and to make all due allowances for the actual conditions that may occur. Moreover, it is not for an invalid diet that the tests are made; it is to ascertain the effects on the normal human organism. Nothing is better known already than that the ordinary preservatives, such as common salt, vinegar, etc., about which there is no question at the present time, may be detrimental to health under certain conditions. The object of the inquiry is to find out whether certain other substances thus used are more so under ordinary conditions, and to an extent justifying such action as that of the German government in regard to borax-preserved meats. It seems probable that something can be obtained from a systematic course of experiment thus instituted, and it is to be hoped there will.

It is not intended, of course, to trifle with the health of the subjects of the tests; they will be under close and careful attention and every variation from the normal noted and met as required. The substances to be tested are not dangerous poisons; they are only food preservatives and coloring matters that have been in use, and the wholesomeness of which in the quantities used has been questioned. This being the fact, we see no reason why any criticism should apply and why we may not expect some valuable results from the research.

A NEW JOURNAL.

The Old Dominion Monthly is a new medical publication whose first issue is just received. It is to appear quarterly at first, with a prospect of more frequent issues in the future if it is thought advisable, and is published by the Alumni Society of the Medical College of Virginia. Dr. Grier Baughman is the editor, and associated with him is Dr. A. B. Greiner and a number of collaborators and department editors. The journal begins without advertisements as an exclusive medically managed publication. The first number speaks well for its ethical and professional standing, both in contents and appearance; the general impression left is a most favorable one. We wish it all success.

THE PROPOSED CONSTITUTION AND BY-LAWS FOR COUNTY SOCIETIES.

We print in this issue the proposed Constitution and By-laws for County Societies, prepared by the Committee which submitted the proposed Constitution and By-laws for State Societies. The fundamental principles on which the constitution is based are vital to the system of organization throughout the country, but, as explained in the preface by the Committee,

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some provisions are only suggestive and may be modified—as was the case with the state constitution—to suit local conditions. The proposed constitution, it is hoped, will meet with the same approval which has been so freely given to the Constitution for State Societies. The preface of the Committee makes longer comment unnecessary.

HAY FEVER IN A WET SEASON.

It is said by the newspapers that the surplus of wet weather that we have had thus far this year has begun to show its effect on the early cases of the annual endemic of hay fever, and it is prophesied by some that we shall largely escape this affliction this year. The ragweed pollen has been, it is claimed, beaten into the ground, and thus the main source of the disorder cut off in its beginnings. This may be a little premature, but it is said to be based on the fact that the early cases, the skirmish line or advance guard of the main army that usually appear at this time, are in default this year. It is a little early, however, to predict what is going to be; there is time enough for considerable developments yet, and the golden-rod season, if that is at all responsible, has not yet commenced. The upper lake and mountain resorts may yet reap their annual harvest and the sum of human discomfort not be seriously depleted.

THE BRITISH OPIUM TRAFFIC.

The British public conscience is somewhat chronically stirred up on the question of the opium trade with China, for which the British, and especially the Anglo-Indian government, is largely responsible. To this fact we owe the Brassey opium commission and its white-washing "for revenue only" report which, while satisfactory to government officials, did not materially help matters, as the agitation still continues. The promise of restriction of the opium cultivation in India under government auspices has not been kept, and the present government declares it is not binding as regards its policy or conduct. The bitterness of the controversy has recently been deprecated by the *Journal of Tropical Medicine*, which, admitting the evil, suggests as a remedy that the powers remove the existing restrictions on the Chinese government and permit it to impose what tax it pleases on imported opium. Only in this way, it holds, can the evil in China be overcome, and it proposes that a resolution or petition to this effect be drawn up and submitted to all the governments of Europe and America. It will do what it can to circulate and obtain signers for such a petition. The proposition for such resolution is one worth considering, but it is a disgrace to our civilization that there should be a reason for it.

THE DETROIT CONSOLIDATION.

We mentioned last week and note again in this issue the consolidation of two societies covering in part the same ground at Detroit. This is a notable instance of the prevalence of unity and systematic organization. We quoted the *Detroit Journal* as saying editorially: "This amalgamation reflects great credit on the members of the profession in Detroit for the liberality they displayed in falling in with the general spirit and purpose of the national organization, the American Medical Association. Though one of the old societies is continued in name, there will be such a change in condition as can not fail to give to the new society more influence and more scientific importance than either of the old ones ever possessed." A consolidation of this character requires sacrifice, whether it be done, as in this case, by the disbanding of one society or whether the two unite. When two societies join under the name of one of them, it is a disputed question whether or not the other ceases to exist. Be that as it may, the credit due to all for the liberality of spirit and the unity of purpose is not small, and the sacrifice will be far outweighed by the benefits derived and the added power of the new society. There are other localities in which a similar action might well be taken. The union in Detroit is a good example to be followed.

THE BRITISH MEDICAL ASSOCIATION.

By courtesy of the Editor of the *British Medical Journal* we have received the advance proofs of the president's address and the introductory remarks made at the opening of the various sections at the seventieth annual meeting of the British Medical Association, held in Manchester, July 29 to 31 and August 1. The address of the president, Mr. Walter Whitehead, is a complete and elaborate contribution on the early influence of Manchester on the advancement of medicine and medical education. He detailed the progress in medicine in Manchester since the British Medical Association held its annual meeting there twenty-five years before, and gave important facts concerning the medical institutions of that city. The president of the section of tropical diseases laid especial stress in his introductory remarks on malaria, saying that no excuse is necessary for dwelling on the importance of the subject or its prophylaxis. He gave a résumé of the recent investigations of the life history and surroundings of the *Anopheles* and detailed the methods of prophylaxis. The president of the section of obstetrics and gynecology also emphasized the progress of medicine and the part the city of Manchester has had therein. He gave a brief biography of the Manchester physicians who have been prominent in the profession of England. The president of the section of otology emphasized "the extraordinary frequence of ear disease in children and its consequences, both from the social and national point of view," and insisted that aural surgeons have a great field before them in preventive medicine. The vice-president of the section of ophthalmology made the introductory remarks at the opening of that section in the absence of the president. He emphasized the beneficent work done by the Royal Eye Hospital at Manchester since 1814. The president of the section of diseases of children said "we can hardly exaggerate the importance of the question of how best to adapt cow's milk to the wants and requirements of the infant," and discussed the indifference of the public to the purity of the milk supply. The program of the meeting has been ably prepared and seems to cover well all the departments of medicine.

Medical News.

ALABAMA.

Birmingham Medical College opens its session of 1902-1903, September 24. The ninth annual announcement just issued contains illustrations of the new college building, and of Hillman and St. Vincent's hospitals.

Cornerstones Laid.—The cornerstone of the Hillman Hospital, Birmingham, was laid July 12, and an hour later, that of the Birmingham Medical College. Both ceremonies were in charge of the Alabama Grand Lodge of Masons.

Personal.—Dr. Orion T. Dozier, Birmingham, has been commissioned surgeon of the Fourth Brigade, Alabama Division, United Confederate Veterans.——Dr. James Kenan, Selma, has returned from his service in the Philippines.——Dr. William H. Oates, Mobile, has been commissioned surgeon of the First Alabama Infantry, with rank of major, vice Dr. Sidney S. Pugh, resigned.——Dr. Samuel E. Lambert, Mobile, has been appointed assistant surgeon, U. S. Army, with rank of first lieutenant.——Dr. Hardee Johnston, surgeon-major of the Third Infantry, A. N. G., has resigned.——Dr. Enoch J. Conyington, Decatur, has been made surgeon of the Dick Adams Rifles, A. N. G., with rank of captain.

CALIFORNIA.

More Bubonic Plague.—Three cases of bubonic plague have been reported from San Francisco since July 15, all Chinamen, all fatal, and the diagnosis in all verified by test inoculations. One case was of the pneumonic form of the disease.

Fire in Hospital.—Sixteen people, helpless from sickness, had narrow escapes from being burned or suffocated to death at the California General Hospital, San Francisco, July 23. The blaze was confined to the basement and first story. Most of the patients were later returned to the building, the upper part being practically unharmed.

Suit to Oust Board of Health Dismissed.—The Attorney-General, on July 26, filed notice of dismissal in the quo warranto proceedings against the San Francisco Board of Health. If the Attorney-General's action is considered conclusive, the members of the old Board of Health will have won a victory over Mayor Schmitz, who sought to remove them, and will hold office until the close of their terms.

Staff of German Hospital.—The directors of the German Hospital, San Francisco, at their meeting, July 24, rescinded the resolutions passed at a former meeting and thereby averted the threatened change in the organization of the medical staff. The board elected the following staff of physicians: Surgical department, Dr. Conrad Weil; gynecological department, Dr. Henry J. Kreutzmann; department of internal diseases, Dr. Emil O. Jellinek; department of eye and ear diseases, Dr. Adolph G. Rosenthal; physicians for city office of society, Drs. Max Salomon and Carl Roese; resident physician at hospital, Dr. A. Lawrence Draper; board of consulting physicians, Drs. Paolo de Vecchi, Douglass W. Montgomery, August Wilhelm, Beverly MacMonagle, E. Steltzner, Martin Regensburger, William Martin, Theodore C. Rethers, Franz Kuckein, Leo Newmark, George E. Goodfellow and Andrew W. Morton.

CONNECTICUT.

Isolation Hospital.—It has been decided to build an isolation hospital for New Britain, and $14,000 has been appropriated for this purpose, equally divided between the city and the township.

Yale Medical School Commencement.—At the annual commencement exercises of the Yale Medical School, June 25, a class of 19 was graduated. Dr. Roswell Park, Buffalo, delivered the doctorate address.

New Buildings for Yale.—The giver of the new clinical building of the Yale Medical School was announced to-day to be Mrs. Thomas G. Bennett of New Haven, who gave $96,000 for the building and site as a memorial of her mother, Mrs. Oliver Winchester. Plans for a new building to adjoin the clinical building, and to accommodate all the work of the medical school, have been prepared. It will be built in three sections, and will cost $275,000.

DELAWARE.

Sanitarium Incorporated.—The Lodi Sanitarium Company has been incorporated at Wilmington, with a capital of $100,000, to establish a hospital and sanitarium.

Endowment of Memorial Beds.—The Delaware Hospital, Wilmington, has received $11,000 from the estate of Dr. W. W. Leslie, formerly of New Castle, to be used to endow two memorial beds.

Medal for Exhibit.—Dr. Ezekiel W. Cooper, Camden, president of the State Board of Health, has received a diploma certifying that the board has been awarded a silver medal by the Paris Exposition of 1900 for its exhibition of bacteriologic and general laboratory work.

Personal.—Dr. Florence Hull Watson, first assistant physician of the Delaware State Hospital, Farnhurst, formerly in charge of the pathologic department of the State Hospital for the Insane at Norristown, Pa., has resigned to continue work in Europe.——Dr. Joseph P. Wales, Wilmington, who has just completed his fiftieth year as a physician, was presented with a handsome painting by his fellow physicians.——Dr. Joseph B. Waples, Georgetown, has been reappointed a trustee of the Delaware State Hospital, Farnhurst.

ILLINOIS.

Personal.—Dr. Henry H. Rogers, Kankakee, assumes his new duties as principal of the Northwestern Military Academy, Highland Park, next month.——Dr. Morton M. Snow, Chicago, has been commissioned first lieutenant and assistant surgeon, I. N. G., and assigned to the First Cavalry.——Dr. Ernest A. Blauler, Carlinville, has gone to Europe for study in Berlin and Vienna.

The State's Charities.—The reports of the several state charitable institutions for the quarter ended June 30 show that there are at present 10,736 inmates in the institutions; that the gross per capita cost of maintenance was $42.87 per quarter, the net per capita cost, $39.06. The highest per capita, $58.36, was at the Institution for the Blind, Jacksonville; the lowest, $30.36, at the Illinois Southern Hospital for the Insane, Anna.

More Accommodation for Incurable Insane.—Provision has been made for the accommodation of 75 additional patients at the State Asylum for the Incurable Insane, Bartonville. The State Board of Charities has ordered that this number of patients be received, and they probably will be taken from the almshouses of the counties that are in the greater need of relief. Twenty of the number will be taken from counties in the district of the Illinois Northern Hospital for the Insane.

Bertillon Classification Adopted.—The State Board of Health has adopted the Bertillon classification of causes of death. The registration law of 1901 requires that all death certificates shall be sent to the county clerks, who are required to record the certificates and quarterly make a tabulated report to the State Board of Health. As the data received from over one hundred county clerks would necessarily lack accuracy and uniformity, the secretary of the board has made a request to the different county clerks that the certificates be sent to the office of the board instead of the epitomized report required by law. If this be complied with, the board will be able to furnish a complete record of all deaths in the state with the details in each case.

New Superintendent of Jacksonville Hospital.—Dr. H. B. Carriel, acting superintendent of the State Hospital for the Incurable Insane, Bartonville, has been appointed by the Governor superintendent of the Illinois Central Hospital for the Insane, Jacksonville. Dr. Carriel is the oldest son of Dr. Henry F. Carriel, who for more than twenty-five years was the efficient and thoroughly practical superintendent of this institution, and who retired in 1893, leaving behind him an exceptional record. Dr. Carriel is a graduate of Chicago Medical College, was interne in Mercy Hospital, Chicago, for a year, and then studied for a year in Germany. After a few years in general practice he became first assistant physician in the Illinois Central Hospital for the Insane, and later acting superintendent of the Bartonville Hospital.

Rules for Shipment of Dead Bodies.—The State Board of Health has made an important change in rules concerning the transportation of the dead, which goes into force at once. Heretofore the transportation of bodies of those who have died of yellow fever has been absolutely prohibited, but under the new rules the bodies of those who die of this disease can be transported in this state between December 1 and April 1. Bodies must, however, be thoroughly disinfected by an embalmer holding a state certificate. The airtight sealing and bandaging with cotton may be dispensed with when disinfected by the embalmer. On and after Aug. 1, 1903, no body dead of any diseases specified in this rule, namely, diphtheria (membranous croup), scarlet fever (scarlatina and scarlet

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rash), glanders, anthrax, leprosy and yellow fever shall be accepted for transportation unless prepared for shipment in accordance with the provisions of this rule by a licensed embalmer holding a state certificate. Disinterred bodies dead of diseases above mentioned and also of typhoid fever, puerperal fever, erysipelas, tuberculosis, measles or other dangerous communicable diseases after Aug. 1, 1903, shall not be accepted for transportation unless prepared by a licensed embalmer holding a state certificate.

Chicago.

Nurses in Sanitary Squad.—The fourteen nurses of the Visiting Nurses' Association have been appointed members of the sanitary squad by Health Commissioner Reynolds, and are authorized to wear the badge of that department.

Rains Cause Disease.—There were 275 per cent. more contagious cases in Chicago last month than in July, 1901, according to a report prepared by Dr. Behm of the health department. Last month there were 519 cases of contagious diseases as against 181 for the corresponding month in 1901. Scarlet fever and diphtheria led the list. Much of the sickness is ascribed to the excessive rains.

July Deaths.—The total deaths for July numbered 2279, or only sixteen more than the number for July, 1901. In proportion to population this is a decrease of 2.7 per cent. in the annual rate—a result to be attributed entirely to the moderate temperature of the present summer. This is well illustrated in the deaths from sunstroke; there were only 7 from this cause last month and 61 in July last year.

Typhoid and a Wet Quarter.—With the close of July there ended the wettest consecutive three months during the last ten years. In May, June and July, 1892, the rainfall measured 19.52 inches, or more than one-half the total rainfall for the year, and the greatest three months' precipitation recorded by the signal service at this station. In that year, 1892, there were 1489 deaths from typhoid fever, and Chicago's typhoid death rate was the highest of 22 principal American cities. During May, June and July of this year the rainfall measured 17.31 inches, or 60 per cent. more than the normal of the previous thirty-one years. There is already 40 per cent. more typhoid fever in the city than there was one year ago, as shown by the fact that there were only eighty cases in the county hospital in July, 1901, while there were 133 last month, and thirty-four more were received up to noon of August 3 since July 31. Thus far the disease is comparatively mild, owing probably to the moderate temperature. In July, 1901, the ten hottest days averaged 95.3 degrees, ranging from 90 to 103, and there were fifty-five typhoid deaths during the month. The ten hottest days last month averaged 87.7 degrees, ranging from 84 to 90, and there were only forty-four typhoid deaths out of 40 per cent. more cases.

KANSAS.

A Centenarian Physician.—Dr. John P. Wood, Coffeyville, has just celebrated his one hundredth birthday. He has been in continuous practice for 78 years.

Hospital Addition Opened.—The latest addition to Christ Hospital, Topeka, known as the Wayne Building, has been formally dedicated and opened to receive patients. The building cost about $15,000.

State Board of Health.—Dr. Melvin N. Gardner, Greenleaf, has been appointed a member.——At its annual meeting the board re-elected Dr. John M. Minnick, Wichita, president and Dr. William B. Swan, Topeka, secretary.——Dr. Sara E. Greenfield, Hiawatha, has been appointed bacteriologist to the board.

College Merger.—The merging of Washburn College and Kansas Medical College, Topeka, is now assured. At the meeting of the committees appointed by the directors of each institution, held July 7, this action was definitely agreed on by the passage of the following resolution:

Resolved, That it be the sense of this meeting of committees, that the Kansas Medical College and Washburn College be united; that we so report to our respective bodies and recommend the appointment of a committee of three members from each institution whose duty it shall be to formulate a plan of union or merger.

MAINE.

Saco Hospital Opened.—The private hospital recently outfitted in Saco is now open for the reception of patients. The institution probably will be called the "Cottage Hospital" in accord with a suggestion of the Saco and Biddeford Medical Society.

Class Reunion.—The class of 1869 of the Medical School of Maine held its seventh reunion in Portland July 22, and was entertained by one of its members, Dr. Frederic H. Gerrish. Nine of the seventeen surviving members of the class were present.

Dr. Hunt Resigns.—Dr. Charles O. Hunt, superintendent of the Maine General Hospital, Portland, has tendered his resignation to the board of directors, to take effect October 1. Dr. Hunt is the first and only superintendent of the hospital, having been in charge of the institution since its establishment in 1874.

Personal.—Dr. Walter E. Tobie, Portland, has been appointed a member of the city board of health, vice Dr. George H. Cummings, resigned, and Dr. Charles M. Leighton, vice Dr. Henry P. Merrill.——Dr. Gilman Davis, formerly of Whitefield, N. H., has returned from Vienna and will practice in Portland, making a specialty of diseases of the nose and throat.

MICHIGAN.

Long Married.—Dr. and Mrs. William H. Haze, Lansing, have celebrated their sixty-second wedding anniversary.

Psychopathic Ward Approved.—The State Board of Charities met at Petoskey July 28 and approved the plans for the new psychopathic ward of the hospital.

Burned Out.—Dr. Ephraim Northcott and family of Essexville were burned out July 20 for the second time in four years. The loss is $7000, partially covered by insurance.

Personal.—Dr. John C. Yates, Ironwood, has been made chief surgeon of the Oliver Iron Mining Company, and of the Northern Division of the Chicago & Northwestern Railway, vice Dr. James K. Niven, deceased.——Dr. Corydon M. Ryno, Benton Harbor, has sailed for Europe.——Dr. Alan D. McLean, Detroit, who has been in the United States Service in the Philippines for two years, has returned and has been appointed surgeon-major of the First Infantry, M. N. G., vice Dr. Martin C. Belser, Ann Arbor, resigned.——Dr. Julius F. Henkel, Detroit, has been appointed surgeon-captain, M. N. G., vice Dr. Alan D. McLean, promoted.

June Mortality of Michigan.—There were only 2234 deaths returned to the Department of State for the month of June, 452 less than the number of deaths returned for May, and 100 less than the number recorded for June, 1901. The death rate was 11.1 per 1000 per annum. There were 395 deaths of infants under 1 year of age, 147 deaths of children from 1 to 4 years, inclusive, and 651 deaths of persons 65 years and over. Important causes of death were as follows: tuberculosis of lungs, 176; other forms of tuberculosis, 29; typhoid fever, 27; diphtheria and croup, 29; scarlet fever, 16; measles, 32; whooping cough, 34; pneumonia, 160; diarrhea and enteritis, under 2 years of age, 55; meningitis, 33; influenza, 11; cancer, 117; accidents and violence, 176. All of the age periods and individual causes showed a decreased number of deaths for the month except the following: Whooping cough, cancer and violence. The increased number of deaths from accidents and violence was due to a large number of deaths from drowning. There were three deaths reported from lightning.

MINNESOTA.

Personal.—Dr. L. H. Fligman, instructor in the university medical department for the last five years, has resigned to take up the practice of medicine in Helena, Mont.——Drs. H. Cohen and Edward J. Clark have been asked by City Physician Nelson to submit their resignations as his assistants. It is known that Dr. Nelson's course was precipitated by the current municipal scandal.——Dr. H. L. Webber, Stillwater, resident physician at the State Penitentiary, has started for the East Coast of Africa, his future field of work.

Sewerage System and Water Supplies.—In the following circular letter the State Board of Health defines its position as to sewerage systems and water supplies:

Section 431 of the General Statutes of 1894 states that the State Board of Health shall have the general supervision of all springs, wells, ponds, lakes, streams or rivers used by any town, village or city as a source of water supply, with reference to their purity, together with the waters feeding the same, and shall examine the same from time to time, and inquire what, if any, pollution exists, and their causes.

In trying to determine the duties of the State Board of Health in relation to water supplies, our attorney, Mr. Harris Richardson, was asked for an opinion. His reply is as follows:

"I am of the opinion that your board has full power and authority to supervise the sources of all water supplies of towns, villages, and cities in this state, with reference to the purity of their water, and full power to examine the conditions of the water supplies, and, in case of the pollution of any thereof, to stop the use of such water whenever the public health requires it.

"In my judgment, examinations with respect to the purity of water supplies should be made from time to time by your board, upon resolution.

"In case at any time you find that pollution of a water supply exists, a time and place may be appointed by your board for hearing the parties to be affected. Notice of such hearing should be given to all parties interested, and if upon the hearing your board determines, in its judgment, that the public health requires it, you may order the difficulty remedied.

"In case your orders are not obeyed, you are authorized to apply to the district court and have your orders enforced.

(Signed) "HARRIS RICHARDSON."

Following this instruction, the State Board of Health, at its meeting July 9, 1902, passed the following resolutions:

Resolved, That from this date all villages, cities, and public institutions contemplating putting in new water plants, or repairing or extending old systems, shall submit to the State Board of Health a statement showing the source from which the water is to be taken, and the plans, if any, for purification or filtration of the water.

Resolved, That from this date all villages, cities and public institutions contemplating putting in new sewerage systems, or repairing or extending old systems, shall submit to the State Board of Health a statement showing the course and place of discharge for all sewage from such systems, and the plans, if any, for the purification or filtration of the sewage.

I trust you will appreciate the position of the State Board of Health in its effort to aid the various villages and cities throughout the state in securing and maintaining pure water supplies. It is the wish of the state board to prevent the construction of unsanitary water plants or sewerage systems, and the consequent waste of money.

NEBRASKA.

Personal.—Dr. Benjamin F. Crummer, Omaha, has returned from a trip to Europe.——Dr. Edith Hayman Saunders, Grand Island, has been appointed physician to the State Industrial Home for Women, Milford.

Verdict for Dr. Jonas.—In the suit of B. Kolmitz against Dr. A. F. Jonas, Omaha, for alleged fatal neglect of the plaintiff's son, suffering with appendicitis, the jury was instructed to find for the defendant, holding that it would be folly, if not sacrilege, for the twelve men to say whether the boy would or would not have lived had he been operated on by a certain physician at a certain time.

Creighton Medical College, Omaha, graduated a class of 37 on May 5. The doctorate address was delivered by Dr. Rufus D. Mason; Rev. M. P. Dowling, president of the university, conferred the degrees, and Dr. C. L. Prickett delivered the valedictory. Dr. C. R. Mowery received the gold medal for the highest grade in hospital work, general medicine and surgery; Dr. T. J. Dwyer the second prize, and Dr. A. F. Burkard the third.

Lincoln Dispensary and Clinic.—A free clinic and dispensary was opened in Lincoln, August 1. The medical staff consists of Drs. H. Winnett Orr and J. M. Mayhew. Drs. Harry H. Everett and A. D. Brewer have charge of the surgical work. Skin and genito-urinary diseases will be looked after by Drs. Edward J. Angle and C. W. M. Poynter; eye, ear, nose and throat diseases will be under the supervision of Drs. Sheldon E. Cook and John P. Williams, while diseases of women will be the specialties of Drs. A. D. Wilkinson and H. J. Lehnhoff.

NEW YORK.

Officers Reinstated.—Health Officer Greene has reinstated Drs. Heath and May, who were accused of intoxication and improper conduct while vaccinating pupils in the public schools. The charges were not upheld.

Skene Sanitarium Incorporated.—Papers of incorporation have been filed in the County Clerk's office, Brooklyn, for the Skene Sanitarium Company. A capital of $25,000 has been subscribed. The company will maintain a home for private patients near the city.

For Criminal Libel.—Dr. George D. Barney, Brooklyn, who a few months ago tried to disprove the Koch theory by inoculating Mrs. Emma D. Thayer, better known as Emma King, with serum taken from an infected cow, was committed to Raymont Street Jail, August 2, by Magistrate Tighe in default of $500 bail, on a charge of criminal libel preferred by the associate managing editor of the *Brooklyn Eagle*.

Personal.—Dr. Giovanni Granna, Utica, has returned after a stay of about nine months in Italy.——Dr. Julius Ullman, Buffalo, is in Canada.——Dr. Julius Pohlman, Buffalo, has returned from abroad.——Dr. John H. Grant, Buffalo, was elected medical director of the department of New York G. A. R. during the recent encampment at Saratoga.——Drs. George York and Sydney Dunham of Buffalo are in Europe. ——Dr. Arthur W. Hurd, superintendent of the Buffalo State Hospital, is spending several weeks in California.

War on Mosquitoes.—Health Commissioner Lederle of New York City has sent out circulars explaining how householders may co-operate with the health authorities in the war upon mosquitoes and, as he believes, in checking malaria. He will assign seventeen inspectors to go over all the territory in the malarial districts of Greater New York. They will make maps of ponds and indicate wherever there is a pool of stagnant water. The authorities will start the application of oil in such spots if the residents will keep up the work. It is necessary to use repeated doses of the oil. Although the commissioner does not expect to accomplish much this year in actual destruction of the pests, yet he hopes to get a vast amount of information that will be of value in planning a campaign another year.

PENNSYLVANIA.

Philadelphia.

Personal.—Drs. W. F. Beerman, J. M. Coley, M. Casey, R. Harcourt, M. B. Lennon and Howard Sutton have sailed for Liverpool.——Dr. and Mrs. J. Madison Taylor are spending the summer at Bar Harbor, Me.

Receiving Ward for Med.-Chi. Hospital.—A new receiving ward, containing 14 beds, has been opened at the Medico-Chirurgical Hospital. The excellent equipment, costing $3000, was the gift of James Bromley.

Samaritan Hospital Annex.—Work is so far advanced on the large annex, administration and clinic buildings of the Samaritan Hospital that three structures are under roof. It is expected that the new buildings will be ready for use in the early fall.

Decrease in Contagious Diseases.—Official returns to the Board of Health for the week ended August 2, showed a decrease in the number of cases and deaths from contagious diseases. For the first week in many months there was not a death from smallpox.

The Jewish Seaside Home for Invalids, at Atlantic City, is doing an admirable work for many poor children of Philadelphia. Seventy-five patients, mostly of the poorer class, are now being cared for, and there is a large waiting list. This charity is conducted by the Jewish Maternity Association of Philadelphia.

GENERAL.

Smallpox.

CALIFORNIA: Sacramento claims that for several months past it has been made the dumping ground for diseased persons from various parts of the state. Several smallpox victims have been sent there. Dr. Henry L. Nichols, health officer, has called on the railroad officials and asked them to stop carrying people afflicted with the smallpox to the city.——Among the Indians at a rancheria near Trunnier Springs, the health authorities have discovered 10 cases and there seems to be every probability of a rapid spread of the disease. It is proposed to quarantine the whole rancheria, and any others who can be identified as having been exposed.

ILLINOIS: Smallpox has been reported to the Illinois State Board of Health from the following localities during the past week: Effingham County, Watson, Jackson Township, and Union Township, McDonough County, Adair and vicinity, St. Clair County, Belleville.——The Chicago Isolation Hospital has still ten inmates.——The State Board of Health has issued an order directing quarantine in all cases of eruptive diseases. The order was called forth by mistakes in diagnosis of smallpox. As soon as the order has been promulgated physicians will be required to report to the health officers all cases of eruptive disease which even remotely resemble smallpox and it then becomes the duty of the health officers to quarantine such patients for fourteen days or until the character of the disease is positively determined. Any physician who violates the order lays himself liable to a fine of not less than $10 nor more than $100.

INDIANA: Greenfield and Hancock County have lifted the quarantine that has been in effect against Knightstown the last five weeks. Five physicians of Greenfield visited Knightstown July 28 to investigate the conditions. They found them so satisfactory that they recommended unanimously that the quarantine be raised at once. There is now but one single case of smallpox in Knightstown and five convalescents. At the hospital there are two patients in bed and ten convalescents.

MICHIGAN: Smallpox has again broken out in Gibson township, Bay County. A total of 11 cases now exists and five houses had been quarantined. The township authorities are doing everything in their power to observe a close quarantine and stamp out the disease. None of the cases is serious. There were 8 deaths from smallpox in June, distributed as follows: One death each in Escanaba, Delta County; Wheat-

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land Township, Mecosta County; Menominee, Menominee County; Pioneer Township, Missaukee County; Vassar, Tuscola County, and three in Detroit.

NEW YORK: Three cases of smallpox are reported to have broken out in a family at Bellona, nine miles south of Geneva. The disease was at first thought to be chicken-pox, but later decided symptoms of smallpox developed and the health authorities were accordingly notified. They have established a quarantine, and spread of the disease is not feared. There are also two cases of smallpox in Richmond, and at Fayette seven cases broke out as the result of exposure of a woman who went there from Rochester.

PENNSYLVANIA: The new Municipal Hospital for the care of Chester's smallpox patients which has just been erected was thrown open for inspection July 22. The hospital has 43 patients.——Four new cases of smallpox were reported to the Pittsburg health bureau July 25.——For five months ending June 30 smallpox cost the city a grand total of $22,222.59. The cost by the month was as follows: February, $1404.44; March, $2321.15; April, $2806.49; May, $4280.97; June, $15,409.54.——For the week ended July 26 there were 4 cases and one death from smallpox in Philadelphia, a decrease of 9 cases and 2 deaths as compared with the report of the previous week.——By order of the State Board of Health two colored camp meetings at Collingdale, Pa., were closed July 27 to prevent the spread of smallpox.

WISCONSIN: Smallpox is once more on the gain in Manitowoc, two families being quarantined this week.

BRITISH COLUMBIA: The Provincial Health Officer has returned from an extensive tour through the province, searching out smallpox cases. He reports that there are only nine cases at present, which is a great improvement on past years. These cases are all properly isolated, and there seems every prospect that smallpox will be stamped out altogether in the province. Of the nine cases, four are at Harrison, Hot Springs, one in Rossland, and four in the Indian reserve at Vancouver.

FOREIGN.

Northern Congress of Internal Medicine.—The fourth northern congress of internal medicine was held at Helsingfors, July 4 to 6. The principal subject discussed was "Syphilitic Affections of the Heart."

Cholera on the Increase.—The spread of cholera is reported from Egypt, Manchuria and China. In Egypt it is called a devastating epidemic, and in Manchuria many Russians and other Europeans are dying.

The Northern Congress of Physicians and Naturalists was held at Helsingfors, July 7 to 12, with 1014 members in attendance, including 53 from Denmark, 70 from Norway, 156 from Sweden and 200 from Russia and Finland.

Death of Karl Gerhardt.—Professor Gerhardt of Berlin was in his seventieth year at the time of his death, July 22. He was a leading man in internal medicine, pediatrics and laryngology. His Manual of Children's Diseases is in general use as a text-book in Germany.

Deaths Abroad.—Dr. Ordenstein of Paris was murdered by a robber in a first-class passenger compartment on the train to Versailles, July 15.——The death is also announced of K. M. Reiss, professor of special pathology and therapy at Copenhagen, and of Dr. P. Kübler of Berlin, member of the editorial staff of the *Deutsche Med. Wochft.*

Professional Jubilees of Hegar, Henoch and Langerhans.—The renowned gynecologist of Freiburg, Alfred Hegar, celebrated the fiftieth anniversary of his medical career, July 16. E. Henoch of Dresden, the veteran pediatrist, celebrated his sixtieth anniversary the same day, and Langerhans of Berlin his sixtieth anniversary the 22d.

Scientific Balloon Ascension.—The Paris Aéro Club has made arrangements for two balloon ascensions for members of the Société de Physiologie this month. In the first, Dr. Tissot will ascend 7000 to 8000 meters (nearly 5 miles), in order to study the effects of the rarefaction of the air at such altitudes. He has been in training for the ascent for some time, undergoing experiences with rarefied air in the pneumatic cabinet. The balloon will be filled mostly with hydrogen gas. The second ascension will be for the purpose of studying the effect of sudden rapid ascension to 4000 or 5000 meters (between 2 and 3 miles), with a view to its possible utilization as a medical measure, like a trip to the mountains. Raymond and Tissot will be of the party.

The Second Inoculation of Dr. Garnault with Bovine Tuberculosis.—The *Gaz. Méd. de Paris* contains an authoritative and illustrated description by the editor of Dr. Garnault's auto-inoculation with caseous matter from a tuberculous cow. A month afterward Dr. Garnault inoculated himself again, this time with a piece weighing about 10 cg., the size of a large pea, taken from a tuberculous mass on the surface of the liver of a cow condemned on account of tuberculosis confirmed by the microscope and bacilli. He inserted this piece in a recess made for it in the adipose tissue between the derma and the aponeurosis, just below the elbow, on the arm previously inoculated. He proclaims that it is his aim to provide bacteriologists with some human ganglia positively infected with bovine tuberculosis, in order, as suggested by Dr. Smith of Boston, to study the modifications in the bovine bacillus after sojourn in the human organism. Garnault considers himself personally and hereditarily exceptionally resistant to tuberculosis, and remarks that his infection will furnish an irrefutable demonstration of the incorrectness of Koch's assertions. His book describing his experiences and the results to date, with the scientific basis for his denunciation of Koch, is attracting considerable attention.

LONDON LETTER.

The Plague.

India.—During the week ending June 21, 1294 deaths occurred from plague, against 1316 in the preceding week. In the principal centers the deaths were distributed as follows: Bombay City 44, against 82; Bombay districts 235, against 169; Calcutta 56, against 65; Bengal 27, against 37; Northwest Provinces and Oudh 39, against 36; Punjab 712, against 776; Mysore State 139, against 103.

Egypt.—In the week ending June 29, the number of fresh cases was 8, against 5 in the preceding week, and the deaths 7, against 2. In the week ending July 6 there were 11 fresh cases and 7 deaths.

Cape of Good Hope.—During the week ending June 21 no fresh cases of plague and no deaths were reported from Port Elizabeth; 4 cases remained under treatment.

The Smallpox Epidemic.

The epidemic has now considerably declined. There are only 597 cases in the Metropolitan hospitals, against 861, 837 and 677 in the three preceding weeks; 57 new cases were admitted during the week, against 107, 129 and 58 in the three preceding weeks. The deaths numbered 13, against 24, 17 and 13 in the three preceding weeks.

Correspondence.

Interesting Notes from Europe.

VIENNA, AUSTRIA, July 21, 1902.

To the Editor:—I hope a few notes as to medical matters in Vienna will be of interest to your readers, and especially to those intending to visit here.

The American contingent here at present is said to be unusually large, while surprisingly few students of other nationalities are encountered. I have seen some half dozen from Great Britain and a few from other European countries, while in June there were 150 Americans. At least half of these are practitioners of some years' standing. The middle west has probably as many representatives as there are from the remainder of the United States; Ohio, Illinois and Wisconsin are particularly prominent in the list.

Professor Albrecht finished his work here June 27, and after a vacation goes to another hospital as pathologist. His magnificent course in gross pathology is deservedly very popular among the Americans, all but one or two in the twenty attending coming from America. At his final exercise they presented him with a traveling bag, Dr. Polke of New York stating in a neat speech that all hoped he would use it when he visited America. He replied that he should much like to visit a country which sent him so many appreciative students. Dr. Stoerk is conducting the course at present, and it is apparently as popular as ever.

It is noticeable that certain branches attract Americans here more than others, and pathology is in the lead. Many earnest and well-educated young men, very creditable representatives of our country, are doing advanced work in pathology and its allied branches. The courses on gynecology are perhaps most

popular after those in pathology. This is largely due to a similar cause, viz., the abundance of material for study and the freedom with which it is used. The special branches are crowded as ever, and the work in clinical medicine and in obstetrics is closely followed.

It is striking, however, that in surgery comparatively few Americans follow the courses, although among the German students they are considered extremely good. I asked a bright young western surgeon how he explained this. He was scarcely watching the surgical work here, much less studying it. He replied that he could learn much more of surgery at home, and that seems to be the general opinion.

This subject was touched on at a supper last evening tendered to Prof. Nicholas Senn, who stopped here a few days on his way back from the far east. He said, in a short, but very suggestive address, that he was much pleased to find that the Americans here were devoting themselves to pathology and bacteriology, for these things they could certainly learn better here than anywhere else. As to surgery, however, he thought it was, in general, better practiced in America than in any of the countries he had visited. "Study your pathology well here, young men," he said, "and we will teach you surgery after you return."

Dr. Senn told us that he went from St. Petersburg to Sebastopol, Constantinople, Jaffa, Jerusalem, Alexandria, Trieste, Gratz and other places looking up the surgical methods in each place, and he was surprised to find that the most perfectly-equipped hospital he had ever seen was in Constantinople. The Sultan has spared no pains nor expense in making it as perfect as possible, and has given his medical advisers power to carry out all the best methods in use in the best hospitals in Europe. The place is essentially German, and the physicians are practically all educated in Vienna or Berlin. Dr. Senn was glad to say that here, little as one might expect it, 16 beds were set apart absolutely for strangers taken sick in the city. The "unspeakable Turk" should certainly receive credit for so magnificent a design.

At Jerusalem the Doctor found a hospital physician who used daily in his work sixteen languages, and yet could not speak with many patients because they knew none of these. Languages must be worse mixed there than in Budapest. Dr. Senn has written up the status of surgery in Vienna, and gone to visit the different German universities on the same mission.

The importance of neurology in American medicine is evidenced by the number of our students who are at work in Obersteiner's laboratory. Many of our younger neurologists have laid the foundation for their work in the magnificent course here given on the anatomy and physiology of the nervous system. In some special work I have done with his assistant, Marburg, I have been continually impressed with the absolute thoroughness of the system of teaching. The certainty with which every fiber, we might almost say, by aid of sections and cross-sections and differential stains, is traced to its ultimate origin, reminds one of the exactness of much of the ophthalmologist's work. Dr. Marburg told me that he is shortly to go back to clinical work again. I believe the University will have difficulty in filling his place with an equally good teacher. Krafft-Ebing's place is still vacant, but his former first assistant, Sölder, is conducting the work and apparently doing it well.

As compared with my hospital work in Denver it seems to me that diseases more or less intimately associated with syphilis, as locomotor ataxia, aortic aneurism, and general paralysis, and late manifestations of syphilis in the nervous system are certainly more common in the clinical work here. I certainly can not conceive how Fenger could continue to teach that there is no especial relationship between syphilis and locomotor ataxia, unless on the theory that both are common enough here to make their concurrence a mere coincidence.

Dr. Sargo, first assistant in Schrötter's clinic, has just been appointed superintendent of the Hospital for Consumptives at Alland. He is well equipped for his work and all hope that he will be able to assist in solving the pressing question of the care of the numerous phthisical patients of the city of Vienna. Judging from our Colorado experience, it would be better to go further to obtain a greater altitude, for most Colorado resorts are three or four times as high, but the reported results are excellent. Yours very truly,

J. N. HALL, M.D. (of Denver).

Alcohol vs. Ammonia in the Treatment of Pneumonia, with a Few Thoughts on the Physiologic Effects of Alcohol.

SPRINGFIELD, MASS, August 2, 1902.

To the Editor:—While the paper of Dr. N. S. Davis, Jr., in your issue of July 5, 1902, contains much that is both interesting and instructive, his treatment of the subject of "diffusible stimulants" not only leaves much to be desired, but also invites criticism. With those who totally eschew stimulants in the treatment of pneumonia, I make no contest, having myself adverted to their inutility in the *Philadelphia Medical Journal* of March 3, 1901, but with one preferring ammonia to alcohol in this disease and for the reasons given I am compelled not only to disapprove the choice but to deny the correctness of the premises upon which it is based. The reasons given may be succinctly stated about as follows: "Alcohol is not a food, is irritating to the stomach, disturbs metabolism, hastens muscular degeneration, is very ephemeral in its action, promotes cyanosis, lessens the oxygen carrying power of the blood, and finally, it dilates the capillaries and lessens diuresis." The advantages claimed for ammonia are that it is more prompt, reliable, more permanent, and less irritating. Most of the reasons urged against alcohol are equally applicable to ammonia, and indeed, many of them are more pertinent to the latter than to the former. Be it understood at the outset that all remarks as to alcohol are not applied to its use habitually in health, or to it when given in toxic amounts, but only in medicinal doses, and in disease. The objection that "alcohol is not a food," may be disposed of by the reply that neither is ammonia; but diffusible stimulants are not given in pneumonia, primarily for their food value, but for their stimulant effects. However, and notwithstanding the noise made by the ultra-temperance cabal, the experiments of W. O. Atwater, professor of chemistry at Wesleyan University, have established its food value, and these results are most assuredly in consonance with the clinical experience of an immense majority of the members of the medical profession. Be this as it may, the dictum of physiology is that the ultimate products of hydrocarbon digestion are carbonic acid and water. Now, since alcohol is a member of this group and furnishes carbon in the most easily oxydizable form, if not a nutriment, it is tantamount to the same thing. The fact that it retards destructive metamorphosis and produces force, renders it, for all practical purposes, *de facto* a food. Not only this, but in conditions of disease and debility, where digestion is practically *nil*, it is an ideal food, indeed, I may say, the fever food *par excellence*. In such conditions the organism tolerates, nay, perhaps, demands large quantities of it, and assimilates it apparently without disturbance. It may be observed in this connection, that the experience of military and exploring expeditions can not be taken as illustrating only one phase of the subject, namely: that the administration of considerable quantities of alcohol with a full ration of food, to young, healthy men, is not beneficial, adding nothing to their ability to withstand cold or fatigue. This is a conclusion to be expected, for giving alcohol under such circumstances is like forcing a steam-boiler by pouring kerosene on to the fire, when the boiler is already carrying every pound of steam it will bear. Given after exposure and fatigue or in disease, debility and in old age, the case is entirely different and the results will differ in a corresponding degree. Under such circumstances of lowered vitality, one can not resist the belief that it may be both grateful and beneficial.

That it disturbs digestion and lessens diuresis is contrary to my experience and I doubt not to that of physicians in general. It is also contrary to all the systematic writers on the subject; Vide U. S. Dispensatory, Potter, Bartholow and Shoemaker "Materia Medica and Therapeutics." All these authors state that, in small medicinal doses,

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"it promotes digestion and diuresis." Per-contra they say of ammonia that it is very transient, its effects being only of a few moments' duration, and that it acts on the stomach as an irritant, and even a caustic. The claim that alcohol "hastens muscular degeneration" must, it seems to me, be based upon *a priori* reasoning, from its well-known tendency, when used to excess and for long periods of time, to induce cirrhotic change in various organs. To assume its producing such effects when given in medicinal doses and for so short a time as is demanded in a case of pneumonia, requires a more vivid imagination than is possessed by the average medico. As to its dilating the capillaries: it may be freely admitted that when given in considerable quantities it, in common with others of its class, including ammonia, possesses this quality, but this is not an unmixed evil. Aconite is recommended as are others, in this very disease, because it produces this dilation. It bleeds the arterial system into the capillary and venous, and hence has been called the homeopathic lancet.

Furthermore, as has been so well pointed out by Dr. Chas. E. Nammack in the *N. Y. Medical Journal* for Feb. 15, 1902, this dilatation "promotes evaporation and radiation" and thus the reduction of temperature and may be controlled by the vasomotor stimulants as strychnia. It is difficult to understand how cyanosis can be produced by alcohol in medicinal doses, for when we find a chronic alcoholic comatose, he lies white, pale and cold, but not cyanosed. What medical man has not seen in cases of pneumonia, when heart failure is impending and death inevitable, a dose of alcohol change the dusky cheek and purple lip to a better color, and even to a scarlet, if only for a few moments. Much more could be urged against the wisdom of preferring ammonia to alcohol in pneumonia, but enough has been said to draw the attention of the profession sharply to the subject. DANIEL E. KEEFE, M.D.

The Pharmaceutic Exhibit at the Association Meetings.

NEW YORK CITY, July 22, 1902.

To the Editor:—The exhibit at the meetings of the American Medical Association is intended to show progress in pharmacy, pharmacology, medical and surgical instruments and appliances, all electrical and mechanical devices and other matters directly allied to, or of special application in, the practice of medicine.

In no other way can such information be so effectively imparted as by a personal inspection of the exhibits, and the scientific explanation of these subjects afforded by the trained experts who are sent by exhibitors expressly for this purpose. The value of such an exhibit to the busy practitioner can hardly be overestimated. The exhibit is, or ought to be, in view of its importance, as interesting and valuable a part of the meeting as any other feature.

A lack of interest by many members has been observed for several years past. Many do not visit the exhibit at all; others appear to give little if any attention to it. The proportion of members present who almost entirely ignore it has reached such numbers that its usefulness has been much lessened to both the profession and exhibitors. Many valuable exhibits have been discontinued, as the slight attention bestowed upon them has discouraged those who, at considerable expense, have made elaborate preparations only to be ignored by a good portion of the members.

It is thought that this lack of interest is caused largely by the indifference of those having charge of this feature of the meeting. The educational character of the exhibit is not dwelt on; it is too frequently placed in some out-of-the-way locality, as a matter of small consequence; it is not officially encouraged by the Association, its presence even being scarcely alluded to in the general meeting; members are not urged, as they should be, to visit it and reap its advantages.

The general public is allowed to visit it, which appears to be a remarkable inconsistency. This is productive of many evils which the self-respect of the profession as well as the welfare of the public should forbid. The exhibit is not intended for the public. Persons ignorant of medicine obtain samples and printed matter whereby they imbibe a dangerous inkling of knowledge, and then attempt to treat themselves for all kinds of fancied ailments. This is directly contrary to the Code of Ethics and, occurring under the management of the most important and scientific medical organization of America, should not be suffered to continue.

Other evils consequent upon promiscuous assembly would also be suppressed if the public were excluded. More time and attention would be given to the legitimate objects of the exhibit—the interviews with physicians, who are now frequently crowded out and retire in disgust. The exhibitor, in many cases, wastes his time in explaining to ignorant ears important professional matters, only to learn at the close of the interview that the listener is not a physician, and completely unable to comprehend what was told him. The families of members should be furnished suitable badges, if desired, entitling them to admission.

The exhibit is either a desirable feature of the meeting or it is not. If it is considered worthy of perpetuation, it should be thoroughly encouraged and meet with such favor as to serve the purpose of its existence. Being authorized by the Association itself, it should have the cordial support and encouragement of the whole organization and should be recognized as an official branch of the meeting. As little success can follow imperfect or crude methods of treating disease, the scientific improvements of medication and improved medical supplies and surgical appliances are of superlative importance, as they stand for human life. The exhibit should take the place at the meeting which its importance demands. If it is not considered desirable it should be discontinued as soon as possible. If suffered to continue without the favor and sympathy of a majority of the membership, without the care and control of those who can appreciate its valuable educational features, and without that interest which alone can elevate its character and maintain its usefulness, it will dwindle into a demoralizing influence and become a discredit to the Association.

R. W. GARDNER.

Priority as to Cancer Theory.

OBERLIN, OHIO, August 1, 1902.

To the Editor:—In the issue of THE JOURNAL of July 26, I see a reference made to an article by R. Beard, University Lecturer on Comparative Embryology, Edinburgh, in the *London Lancet* of June 21, which would appear to be a new theory as to the cause of cancer. I think this theory is not new, as essentially the same causes were suggested by me in an article entitled, "A Brief Speculation Upon Morbid Growths," published in the *Cleveland Medical Gazette* (now the *Cleveland Medical Journal*) of June, 1891. WM. C. BUNCE.

State Boards of Registration.

Photographic Identification.—The Illinois State Board of Health has added the following to the requirements for license to practice medicine, namely, that every applicant must present for filing with his application, a recent photograph of himself, on the reverse of which he shall have written his name. This must have been witnessed by a notary public or other like official certifying to his identity as the original of the photograph.

Michigan Will Reciprocate.—The Michigan State Board of Registration in Medicine has endorsed the action of its representatives at the Chicago meeting of states in this vicinity, May 20, and will grant licenses without examination on presentation of a satisfactory license from another state board. The following are the two qualifications in brief: 1, when the license was obtained on the basis of a satisfactory diploma and an examination, both license and diploma having been obtained subsequent to July 1, 1902; and 2, when the license was obtained on the basis of a satisfactory diploma only, both diploma and license having been obtained previous to July 1, 1902. Dr. B. D. Harison, Sault Ste. Marie, secretary, has sent us the circular of the board detailing these provisions. This may be obtained from him by any applicant. The circular explains what will be considered a satisfactory diploma, one from a college of standard requirements. This includes all the colleges commonly termed "reputable" by the Illinois State Board of Health's "Official List."

Married.

OTTO F. SUTTER, M.D., to Miss Florence A. Mabee, both of St. Louis, Mo., July 22.

BENJAMIN FRANKLIN ROLLER, M.D., to Miss Lesley Emma Kost, both of Philadelphia.

F. Z. WINCHELL, M.D., Agra, Kan., to Miss Tilla Johnson of Long Island, Kan., July 27.

GEORGE A. MOORE, M.D., Eutaw, Ala., to Miss Augusta McMillan of Clinton, Ala., July 24.

AUSTIN W. ALVORD, M.D., Battle Creek, Mich., to Miss Addie M. Anderson, at Midland, Mich.

JOHN RICE COWAN, M.D., Danville, Ky., to Miss Viola Palmer, at Midway, Ga., July 29.

FRED H. WELLES, M.D., Victor, Colo., to Miss Bertha Cherrington of Pueblo, Colo., July 23.

EDWARD M. TALBOTT, M.D., Fairville, Mo., to Mrs. Lolla Barrey of Sanger, Texas, July 24.

WILLIAM W. FITZGERALD, M.D., Stockton, Cal., to Miss Mabelle Louise Pickering of Boston.

WALTER PECK MILLER, M.D., Newport, Va., to Miss Frances Smoot Easley of Pearlsburg, Va., July 23.

GEORGE PRATT HUNT, M.D., Pittsfield, Mass., to Miss Fannie Porter Chubbuck of North Weymouth, Mass., June 25.

C. HOLLISTER JUDD, M.D., to Miss Gertrude Bucknell, both of Philadelphia, at Pine Point Lodge, Upper Saranac, N. Y., July 31.

CORYDON M. RYNO, M.D., Benton Harbor, Mich., to Miss Ida Eder of Wiesbaden, Germany, at New Brunswick, N. J., July 16.

Deaths and Obituaries.

Philo O. Hooper, M.D. Jefferson Medical College, Philadelphia, 1856, vice-president of the American Medical Association, 1882, who, on account of the death of the president, Dr. Woodward, presided over the St. Paul meeting in 1880; trustee from 1882 to 1892; one of the founders, and for many years superintendent of the Arkansas State Insane Asylum, Little Rock; founder of the Medical Department of the Arkansas State University; first president of the Little Rock Medical Society; some-time president of the Arkansas Medical Society; a prominent physician and alienist of Little Rock, died on a train near Sayre, July 29, while on his way to California, from asthma, aged 68.

Herbert M. Pomeroy, M.D. Cooper Medical College, San Francisco, Cal., 1892, a member of the American Medical Association, died at his home in Los Angeles, July 24, from the effects of morphin taken with suicidal intent, while suffering from acute melancholia, aged 38.

G. A. Sander, M.D., Leipzig, Germany, 1860, a surgeon throughout the Civil war and thereafter a physician of Dillon, Iowa, died at his home in Belle Plaine, Iowa, July 17, from hemiplegia following an accident, after a short illness, aged 68. 68.

J. H. Horsey, M.D., Owen Sound, Ont., Queen's University, Toronto, Liberal Member of Parliament for North Grey, Ont., was accidentally killed July 23, by the bursting of a flywheel in the Owen Sound Cement Works. He was 35 years old.

William W. Douglass, M.D. University College of Medicine, Richmond, Va., 1855, died at Warsaw, Richmond County, Va., July 26. He served during the Civil war as surgeon in the Army of Northern Virginia, C. S. A.

W. Henry Taylor, M.D. Vanderbilt University, Nashville, Tenn., a practitioner of Richardsville, Ky., was instantly killed in a runaway accident at Bowling Green, Ky., July 17, aged 35.

John H. Thompson, M.D. New York University, 1866, an esteemed practitioner of Albany, N. Y., died in the Adirondacks, July 20, from the effects of an abscess of the neck, aged 64.

James S. White, M.D. Michigan College of Medicine and Surgery, Detroit, 1894, died from liver disease and nervous exhaustion, at his home in Montour, Iowa, July 15, aged 40.

Asa P. White, M.D., one of the oldest practitioners in Illinois, died in the Vermilion County Hospital, Danville, Ill., July 13, from the effects of an accident, aged 79.

James G. Cooper, M.D. College of Physicians and Surgeons, New York, 1851, died at his home in Haywards, Cal., July 19, after a long period of invalidism.

Charles A. Van Urff, M.D. Long Island College Hospital, 1890, died from heart disease at his home in East New York, Brooklyn, July 16, aged 35.

George F. C. Wenck, M.D. Medical College of the State of South Carolina, Charleston, 1877, died at his home in Piedmont, W. Va., July 12.

Lewis Birney, M.D. College of Physicians and Surgeons, Keokuk, Iowa, 1878, died recently at his home in Nora Springs, Iowa.

Benjamin S. Graves, M.D. Atlanta (Ga.) Medical College, 1885, died at his home in Nacoochee, Ga., July 27, from malaria.

Henry C. Welfley, M.D., died at his home in Shenandoah City, Page County, Va., July 19, aged 45, after a long illness.

William B. Smith, M.D., 1878, died suddenly, July 27, at his home in Aspel, Ala., from heart disease.

Morrow Couden, M.D. University of Cincinnati, 1881, died at his home in Morrow, Ohio, July 26.

E. Lee Wager, M.D., a retired physician, died at Charlestown, W. Va., July 23, aged 78.

Association News.

New Members.

The following is a list of new members for the month of July, 1902:

ALABAMA.
Ward, Edward Burton, Selma.
Cunningham, Russell McWhorter, Ensley.
Taylor, Wm. H., Central Mills.

ARIZONA.
Phelps, Harlow J., Phœnix.

CALIFORNIA.
Helm, Thaddeus W., Bakersfield.
Martin, Hugh Ralph, Riverside.
Taylor, A. H. San Francisco.
Girdlestone, Chas. W., Riverside.

DISTRICT OF COLUMBIA.
Ramsbaugh, Jesse, Washington.

FLORIDA.
Godard, Robert Fain, Chattahoochee.
Boyd, John Elliott, Jacksonville.
Fogarty, J. N., Key West.

GEORGIA.
Evans, W. W., Higgston.
Ezell, H. E., Monticello.

ILLINOIS.
Cohenour, V. J., Joliet.
Zinser, Harley A., Roanoke.
Wright, Charles Ely, Scales Mnd.
Langhorst, Henry F., Elmhurst.
Taphorn, Gerhard, Alton.
Chandler, A. Wellington, Compton.
Orth, Daniel A., Chicago.
Owsley, Paul O., Chicago.
Stein, Otto J., Chicago.
Brandt, Franz Henry, Chicago.
Parkes, Wm. R., Evanston.

INDIANA.
Stockwell, S. F., South Bend.
Garrigues, I. D., Cedar Grove.
Hodges, Vincent L., Centre.
Angell, Wm. A., Muncie.
Dickes, John T., Portland.

IOWA.
Hague, Albert Smiley, Fairfield.
Parker, Jas. Donaldson, Fayette.
Cowan, Isabel Eliot, LeMars.
McCaw, W. H., Winfield.
Spicer, S. S., Cedar Rapids.
Chapman, H. R., Bennett.

KANSAS.
Chamberlain, Lawrence Safford, Topeka.
Pavlish, Andrew S., Kansas City.
Swarts, William Andrew, Wolcott.
Williams, Frank S., Chapman.
O'Donnell, F. W., Junction City.

KENTUCKY.
Meshew, J. W., Barlow City.
Reynolds, Jas. H., Louisa.
Jackson, John D., Danville.
Holmes, R. L., Carrollton.

LOUISIANA.
Wille, Louis Gustav, Loreauville.
Foreman, T. C., Foreman.
Lemann, Isaac Ivan, New Orleans.
VerBent, Louis G., New Orleans.
Miller, C. Jeff., New Orleans.
Guthrie, Jas. Birney, New Orleans.
Fortier, St. Mark, New Orleans.
Dyer, Isadore, New Orleans.

MAINE.
Jonah, Horace Virchow, Eastport.
Moulton, W. B., Portland.

MASSACHUSETTS.
Boardman, A. K., Adams.
Bryant, J. E., Haverhill.
Meader, Chas. E., Lynn.
Haskell, Henry Hill, Boston.
Cotton, Frederick Jay, Boston.
Leland, Geo. Adams, Boston.
White, Clifford A., Northampton.
Cronin, Thomas J., Webster.

MICHIGAN.
Gillett, John Sparta.
Van Noppen, D. A. Zwightman, Niles.

MINNESOTA.
Nuckolls, Geo. W., Tintah.
Cooney, Henry C., Princeton.

MISSISSIPPI.
Talbot, M. Lyle, Biloxi.

MISSOURI.
Quast, E. von, Kansas City.
Strickland, William Ross, Rock Port.
Nally, Harvy, Cainsville.
Curry, E. R., Kansas City.

NEBRASKA.
Holovtchiner, E., Omaha.
Steenberg, Edmund A., Aurora.
Pheasant, Leon Ray, Pierce.

NEVADA.
Walker, Moses R., Reno.

NEW HAMPSHIRE.
Gile, John M., Hanover.

NEW YORK.
Towne, Geo. Scott, Saratoga Springs.
Rich, A. C., Saratoga Springs.
Thompson, Rufus Allen, Norwich.
Maxfield, T. R., Brooklyn.
Rich, Francis M., Buffalo.
Putnam, James Wallace, Lyons.
Booth, Charles Francis, New York City.
Schoolcraft, G. E., Hartwick.

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French, John H., New York.
Sherman, Charles Fremont, Hadley.

NORTH CAROLINA.

Hardy, Ira May, Washington.
Briggs, Henry Harrison, Asheville.
Irwin, John R., Charlotte.

OHIO.

Herrick, Fred'k C., Cleveland.
Louy, Chas., Toledo.
Firmin, F. W., Findlay.
Birge, Russell Hall, Cleveland.
Bohlender, E. E., Dayton.
Hauser, Chas. D., Youngstown.

OREGON.

Story, George B., Portland.

PENNSYLVANIA.

Whiteway, Harold Morse, Philadelphia.
Ruoff, William, Philadelphia.
Plass, Chas. F. W., Philadelphia.
Sager, J. Luther, Allentown.
Campbell, John A., Mildred.
Weidler, Walter Baer, Lancaster.
Logan, Edward P., Allegheny.
Wallace, Wm. C., Ingram.
Stock, Geo. A., Danville.
Elterich, Theodore J., Allegheny.
Ewing, Wm. B., Pittsburg.
Humphrey, G. E., Cambridge Springs.

SOUTH DAKOTA.

Mulcahy, M. V., Vermillion.
Warne, R. C., Mitchell.
Maytum, W. J., Alexandria.

TENNESSEE.

Woodyard, S. W., Greeneville.

TEXAS.

Hill, H. B., Austin.
Garvin, D. E., Keene.
Scott, J. W., Houston.
Ashford, J. B., Sherwood.

UTAH.

Whitney, E. W., Salt Lake City.
Harris, J. M., Ogden.

VERMONT.

Waterman, H. L., Brattleboro.

VIRGINIA.

Adams, W. J., Norfolk.
Draper, S. A., Roanoke.
McCormick, J. J., Norfolk.
Pedigo, L. G., Leatherwood.

WASHINGTON.

Kimball, E. L., Spokane.
MacKinnon, J. A., Seattle.

WEST VIRGINIA.

Hardy, Irwin, Davis.

WISCONSIN.

Hering, Eugene R., Shell Lake.
Lewis, Wm. Henry, Eland.
Frick, Lewis, Hilbert.
Leland, Abram Mills, Whitewater.
Nixon, H. G. B., Hartland.
Cassidy, Wm. W., Durand.

WYOMING.

Croskery, Ernest A., Wheatland.
Rohrbaugh, E. P., Caspar.
Wiseman, Letitia, Cheyenne.

Societies.

Larue County (Ky.) Medical Society.—The eighth annual meeting of this Society was held in Hodgenville, July 10. Dr. William E. Rodman was elected president and Dr. E. S. Smith, secretary, both of Hodgenville.

American Association of Obstetricans and Gynecologists.—This Association will hold its fifteenth annual meeting at Washington, D. C., September 16-18, under the presidency of Dr. Edwin Ricketts, Cincinnati.

Henry County (Tenn.) Medical Society.—At a meeting of the physicians of the county in Paris, July 7, this Society was organized, with Dr. Gilbert T. Abernathy temporary chairman, and Dr. John H. McSwain temporary secretary.

Warren County (Ill.) Medical Society.—This Society held its annual meeting, May 9, at Monmouth, and re-elected Dr. William S. Holliday, president; Dr. William H. Wells, secretary, and Dr. Edward L. Mitchell, treasurer, all of Monmouth.

Wayne County (Ind.) Medical Society.—At the annual meeting of this Society, in Richmond, July 11, Dr. George H. Grant was elected president; Dr. L. G. Bowers, vice-president, and Dr. Stephen C. Markley, secretary and treasurer, all of Richmond.

Washington County (Pa.) Medical Society.—The annual meeting of this Society was held in Washington, May 13. Dr. Henry L. Snodgrass, Buffalo, was elected president; Dr. John B. Donaldson, Canonsburg, secretary, and Dr. A. E. Thompson, Washington, treasurer.

American Electro-Therapeutic Association.—This Association will hold its annual meeting at the Hotel Kaaterskill, Catskill Mountains, N. Y., September 2, 3 and 4. Dr. William Stevens, 70 West Fifty-second street, New York City, is in charge of the arrangements.

Utah County (Utah) Medical Society.—This Society held its annual meeting at the State Asylum, Provo, June 5. Dr. Fred W. Taylor, Provo, was elected president; Dr. Melville W. Coffman, Pleasant Grove, vice-president, and Dr. J. M. Henry, Payson, secretary and treasurer.

Stephenson County (Ill.) Medical Society.—The annual meeting and election of officers of this Society was held in Freeport, July 10. Dr. John F. Fair was elected president; Dr. Jeremiah H. Stealy, vice-president, and Dr. Robert J. Burns, secretary and treasurer, all of Freeport.

Iowa and Illinois Central District Medical Association.—This Society held its annual meeting in Davenport, Iowa, July 10, and elected Dr. John H. Kulp, Davenport, president; Dr. Albert M. Beal, Moline, Ill., vice-president; Dr. Frank H. First, Rock Island, Ill., secretary, and Dr. Martha Anderson, Moline, treasurer.

Anderson County (Ky.) Medical Society.—Drs. J. N. McCormack, Bowling Green, secretary of the State Board of Health, and William Bailey, Louisville, also a member of that board, went to Lawrenceburg and organized this Society. Dr. Oliver L. Townsend, Camden, was elected president, and Dr. Lewis C. Moffet, Alton, secretary.

Missouri State Health Association.—At the annual meeting of this body of sanitarians, held in Kansas City, July 8, the following officers were re-elected: Dr. A. W. McAlester, Columbia, president; Dr. Winn F. Morrow, Kansas City, secretary, and Dr. James K. Graham, St. Joseph, recording secretary. The Association adjourned to meet in Jefferson City in January, 1903.

Upper Peninsula (Mich.) Medical Society.—This Society held its seventh annual meeting at Ishpeming, July 15. The following officers were elected: Dr. Joseph A. Crowell, Iron Mountain, president; Drs. George D. Beach, Champion, Charles J. Ennis, Sault Ste. Marie, and Henry M. Joy, Calumet, vice-presidents, and Dr. S. Edwin Cruse, Iron Mountain, secretary and treasurer.

Iowa Union Medical Society.—The semi-annual meeting of this Society was held in Cedar Rapids, July 8. The following officers were elected: Dr. John W. Kirkpatrick, Wyoming, president; Drs. Albert W. Sherman, Burlington, and Mary L. Neff, Cedar Rapids, vice-presidents; Dr. J. De Witt Graham, Springville, secretary, and Dr. George P. Carpenter, Cedar Rapids, treasurer.

West Branch (Pa.) Medical Association.—At the ninth annual meeting of this organization, held in Lock Haven, May 20, the following officers were elected: Dr. C. S. Musser Rohrsburg, president; Drs. James L. Henderson, Osceola Mills, and Horace G. McCormick, Williamsport, vice-presidents; Dr. Joseph M. Corson, Chatham Run, secretary, and Dr. John C. McAlister, Ridgway, treasurer.

Wayne County (Mich.) Medical Society.—At a meeting of this Society and the Detroit Medical Society, held in Detroit, July 25, the question of the name for the consolidated societies was vigorously discussed at length. The situation was finally met satisfactorily by the Detroit Medical Society disbanding and its members being elected to membership in the Wayne County Medical Society, which will apply to the state society for recognition.

Boyle County (Ky.) Medical Society.—After a very interesting talk by Dr. J. N. McCormack, of the State Board of Health, on the great importance of organization, one reason for organization being for the purpose of creating more and wider interest in public health and sanitary matters, a society was formed at Danville, with Dr. W. A. Brown, Parksville, president; Dr. James W. Krichbaum, Danville, vice-president, and Dr. Bogle, Danville, secretary.

Medical Society of Nova Scotia.—The thirty-fourth annual meeting of this Society was held at New Glasgow, July 2 and 3, under the presidency of Dr. John W. McKay, New Glasgow. The following officers were elected: President, Dr. John J. Cameron, Antigonish; vice-presidents, Drs. William G. Putnam, Yarmouth, and Murdock Chisholm, Halifax; secretary-treasurer, Dr. William Huntley MacDonald, Antigonish. The Society will meet next year at Antigonish.

Yale Medical Alumni Association.—At the annual meeting of this Association, held in New Haven, June 24, the following officers were elected: President, Dr. Edward R. Baldwin, Saranac Lake, N. Y.; vice-presidents, Drs. Edward W. Goodenough, Waterbury; Norman B. Bayley, Haverstraw, N. Y.; Ernest D. Chipman, Waterbury; Russell S. Church, Bristol, R. I., and Sharp, Branford, Conn.; secretary and treasurer, Dr. Frederick C. Bishop, New Haven.

University of Texas Medical Department Alumni Association.—The alumni of this department met at Galveston, May 31, and elected the following officers: President, Dr. John T. Wilson, Galveston; vice-presidents, Drs. Charles C. Jones, Galveston, James F. Jones, Sherman, and B. E. Gatewood, Dallas; secretary, Dr. H. Koester, Galveston; treasurer, Dr. H. O. Sappington, Galveston; orator, Dr. J. S. Terrell, Denton, and alumni editor of the university medical journal, Dr. W. L. Allen, Mexia.

Wabasha County (Minn.) Medical Society.—The thirty-fourth annual meeting of this Society was held at Mazeppa, July 10. It was voted to affiliate with the state medical society. By this action, all members of the county society, who are residents of the county and who pay their dues will become members of the state society. Officers elected for the ensuing year were: President, Dr. Joseph F. Bond, Wabasha;

vice-president, Dr. William J. Cochrane, Lake City, and secretary and treasurer Dr. William F. Wilson, Lake City. It was voted to hold the next meeting at Elgin in July, 1903.

Tri-State Medical Association of Western Maryland, Western Pennsylvania and West Virginia.—This Association met at Cumberland, Md., July 24. Dr. William F. Barclay of Pittsburg delivered an address on "The Past, Present and Future of Medicine." Papers were read by Drs. Thomas S. Cullen, Baltimore; Clement R. Jones, Pittsburg; Charlotte B. Gardner, Johnstown, Pa., and others. The following officers were elected for the ensuing year: President, Dr. William Q. Skilling, Lonaconing, Md.; vice-presidents, Drs. Timothy Griffith, Frostburg, Md.; Robert Gerstell, Elk Garden, W. Va., and H. Clay McKinley, Myersdale, Pa.; corresponding secretary, Dr. Frederick W. Fochtman, Cumberland, Md.; recording secretary, Dr. Percival Lantz, Alaska, W. Va., and treasurer, Dr. E. B. Claybrook, Cumberland, Md.

Michigan State Medical Society.—The first meeting of the new council of this Society was held, July 10, in Detroit, in conjunction with a meeting of the reorganization committee of the state society. The council devised plans for the reorganization of the profession throughout the state chiefly through the improvement of the county society system. A resolution was adopted for the organization of the county societies whereby each member of the county council will draft a constitution and by-laws after his own ideas and submit the same to the secretary of the council, Dr. William H. Haughey, Battle Creek; Dr. Haughey will then select the salient points of each constitution and incorporate them in a constitution which he will draft and which, when approved, will constitute the charter of the county societies. The committee reported that it had decided to go back to the old name of Michigan State Medical Society instead of the present name, as much confusion had resulted from a popular misunderstanding that the new name was that of an entirely distinct society. It was voted also to allow the councillors an amount for expenses not exceeding $25 in traveling about visiting the various medical societies in the counties to which their jurisdiction is assigned. The basis of county representation was changed from 100 to 50, which will result in increasing the house of delegates from the counties one-half. Provisions for the establishment and publication of a medical journal were also made, the journal to be edited and printed under the direction of the council. The dues of the society were lessened from $3 to $2 a year, which includes the subscription for the medical journal.

COLORADO STATE MEDICAL SOCIETY.

Twenty-second Annual Convention, Held at Pueblo, June 24-26, 1902.

President, Richard W. Corwin, M.D., Pueblo, in the Chair.

New Constitution.

DR. WILLIAM P. MUNN, Denver, chairman of the special committee appointed at last year's meeting for the revision of the constitution and by-laws, reported in favor of adopting the constitution and by-laws as recently printed in THE JOURNAL. The only deviations were the following: Election to honorary membership of worthy and distinguished medical men by a vote of two-thirds of members present; to hold the annual session at a date fixed at preceding annual convention; to limit papers to fifteen minutes and discussion to five minutes; each county medical society to be granted one delegate for every twenty-five members or fraction thereof; the nominating committee to consist of five members; standing committees to be appointed by the president instead of being elected, and to make the annual dues for members of the state society three dollars for those who are members of a county society, otherwise five dollars, as heretofore.

Award of Prize.

DR. EDWARD JACKSON, Denver, chairman of the special literary committee on the awarding of a prize of $25 for a monograph on "The Dangers to the Laity from Self-Drugging with Proprietary Medicines," reported that twenty essays had been received and that the prize had been awarded to Dr. Edward Bumgardner, Lawrence, Kan.

Relapsing Septicemia.

DR. WILMER G. LOCKARD, New Castle, reported the case of a V-para, who, on the seventh day after delivery, commenced to have fever and other indications of sepsis. Curettement was done with good effect. Nine days later a relapse set in, the original seat of infection remaining unaffected. She had pleurisy, pneumonia, and all the glandular structures were involved. On various occasions the temperature was 107.6 degrees, and yet her consciousness was perfect throughout the disease until she died, forty-seven days after her confinement.

Pulse and Respiration at High Altitudes.

DR. MAURICE KAHN, Leadville, in a report based on the examinations of 100 subjects at an altitude of 10,000 feet, takes the ground that the almost universal fear of heart failure at high altitudes is groundless. The rates of pulse and respiration vary but slightly from the normal at altitudes two miles lower. The average pulse for 83 was 76.36, and the average respiration, 20.28. Average pulse for 17 women, 77.17; average respiration, 21.41. The highest pulse in man was 92 and highest respiration 26; lowest pulse 60, and lowest respiration 15.

Uncertain Therapeutics.

DR. JAMES M. BLAINE, Denver, condemns the use of proprietary ointments in dermatological practice, and thinks the man who seeks aid from drugs to make the diagnosis of syphilis casts a blight on many a fair name, wrecks many a matrimonial ship, and in the language of Dogberry "writes himself an ass."

The Lying-in Chamber.

DR. MINNIE C. T. LOVE, Denver, thinks that something has produced a curious state of affairs in obstetrical practice when medical men are talking of having trained midwives to attend normal confinement cases among the poor. Who is to determine whether the case is normal? She thinks the public mind should be educated to send women to be confined to properly conducted hospitals. Not only should we not tolerate midwives, but no physician in general practice should attend to the lying-in woman, except in emergency cases.

Fracture of the Neck of the Femur.

DR. WILLIAM W. GRANT, Denver, expressed his doubts as to the alleged four weeks' cure of fracture of the femoral neck on the aged, and reviewed the cases reported before some of the national organizations during the last two years. He secured bony union in one case of fracture of the small portion of the neck of the femur in a woman of 44. He favored nailing the fragments through the trochanters. The failure of bony union in the aged is due to impaired blood-supply.

Amnesia.

DR. SAMUEL D. HOPKINS, Denver, reported an interesting case of an undertaker from New York in whom memory was a perfect blank from July 4 to Sept. 21, 1900. The patient found himself walking in the street in Denver, dressed in overalls, his hands bearing the marks of hard labor. His shoes bore the mark of a Philadelphia store and the clothing that of Chicago. The author dwelt on the psychic fact that memory is regained in inverse order, and that the first event forgotten is the last to be recalled.

The Army Medical Department.

DR. WILLIAM P. MUNN, Denver, made some suggestions regarding the betterment of the medical department of the Army. He thinks that our political system made not only possible but inevitable these conditions in the camps of Chickamauga and Montauk which in a few months decimated by disease regiments that never left our shores. The words military surgeon are misleading, as all the appointments are made from the ranks of surgeons, and the knowledge of general medicine and sanitary principles is not taken into consideration. He formulated the following suggestions: 1. Each regiment should have a sanitary officer. 2. Each army corps should have a sanitary directory. 3. The sanitary officer should have an opportunity to appeal from the decision of his superior officer in important sanitary matters. 4. Line officers should have thorough instruction in sanitary science. 5. The location of hospitals and procurement of water supply should not depend on the whims of quartermasters. 6. The surgeon-general should be empowered to provide for a skeleton organization of medical and sanitary officers from which volunteer and militia regi-

ments should draw their surgeons and sanitary officers when war necessitates a rapid increase of the army. 7. The regimental sanitary officer should be allowed a detail of men sufficiently large to do sanitary police duty. 8. Location of sinks in contiguity with camp kitchens should be absolutely forbidden. 9. The sinks should be constantly under the care of an army officer. 10. The contents of the sink should be emptied daily and cremated. 11. Special sinks should be constructed in such a manner as to be easily transported and put together. 12. Every regiment should have a garbage furnace. 13. Every brigade should have a portable distilling and ice plant.

Symposium on Practical Sanitation.

PROF. J. F. KEATING, Superintendent of Schools, Pueblo, outlined a plan whereby the physicians in each community could help in improving the hygienic condition of the schools, and the community in general. He believes that pupils fail in health not from overwork, but from bad food, late hours and other forms of dissipation. He advocates the popularization of hygiene by means of lectures, demonstrations, etc., to be delivered by physicians to pupils of the public schools.

Business Aspects of Medical Practice.

DR. JOHN T. DAVISON, Victor, described in detail the workings of the Physicians' Business League of Victor. It has no formal rules, meets twice a month and the main stress is laid on the business aspect of the profession. The fee-table adopted by the Association is respected throughout the district, reduction of telephone rates has been obtained, and the fees for life insurance examinations, both fraternal and straight life, have been raised through its efforts.

Corneal Burns.

DR. EDGAR MARBOURG, Pueblo, after removing the offending substances, instills every half hour olive oil, preferably the heavy green oil. He claims that this treatment causes almost immediately the formation of a line of demarcation between the destroyed and normal tissue. He thinks that possibly on account of its specific gravity or other elements, the oil insinuates itself beneath the burned tissue and protects the living tissue. In about twenty-four hours the use of oil should be discontinued. Curetting is not necessary. To clear up the leukoma or nebula, thiosinamin in doses of three grains, daily, kept up for three months, gives the best results.

Tubercular Glands of the Neck.

DR. LEONARD FREEMAN, Denver, draws the following conclusions regarding treatment. The gravity of tuberculosis of the cervical glands is underestimated. General treatment, especially hygienic, is of the utmost importance, both as a cure and and a preventive of relapses. A residence at high altitude possesses superior advantages to that at sea level. Local treatment for removal of cause, teeth, tonsil, nose, ear, etc., is of importance. Pulmonary involvement does not contraindicate operation. The chances of permanent cure following operation is better in Colorado than in lower and less favorable climates.

Etiology of Uterine and Pelvic Diseases.

DR. CLARENCE L. WHEATON, Denver, classed the environments of the boarding schools, mental fatigue, follies of fashion and gonorrheal infection as etiologic factors of many pelvic diseases.

Mental Therapeutics in General Practice.

DR. HOWELL T. PERSHING, Denver, referred to the interdependence of mind and body. He is of the opinion that physicians should endeavor to make a strong mental impression on their patients, yet hypnotism as such is legitimate only in exceptional cases. He reported the case of a patient who came to Colorado on account of repeated hemorrhages, constant cough, loss of weight, rapid respiration, etc. He manifested hemianesthesia and other typical signs of hysteria. An impressive statement as to the favorable outcome made before a clinic in the hearing of the patient, and appropriate treatment produced immediate improvement. The essential cause of hysteria lies in mental perversions which are made worse by wrong diagnosis and prognosis. He advocated the teaching of psychology in medical schools.

Delusions, Sane and Insane.

DR. BERNARD OETTINGER, Denver, said that delusions are the result of disordered somatic functions. Delusions incorrected by judgment based on common experience are usually insane. The sane suffer from apparitions and are to be considered as hallucinatory illusions. Demonology rests upon ignorance. Eccentric people have delusive beliefs, but do not act on them.

Tuberculin Test.

DR. MOSES COLLINS, Denver, made observation with the tuberculin test upon 24 patients in the Jewish National Home for Consumptives. His conclusions are not favorable to the reliability of the test.

Coincident Cases of Ectopic Pregnancy.

DR. HORACE G. WETHERILL, Denver, reported a series of eight cases that embraced periods of pregnancy from three weeks to six and one-half months, all types of tubal abortion and rupture, including one case of intraligamentous rupture. In his operative detail he fixed certain principles: He operates on all cases of ectopic pregnancy by the abdominal route; he wipes out the abdominal cavity, but does not irrigate; hot salt solution introduced intravenously and in the abdominal cavity for stimulation is invaluable; he does not operate while the patient is in shock, but waits for reaction to take place. He never drains for the sake of drainage simply and does not use purges for a week after the operation.

Therapeutic Application of X-Rays.

DR. GEORGE H. STOVER, Denver, said that the therapeutic virtues of the *x*-rays were called to his attention by the patients themselves while taking skiagrams. They are first of all analgesic. He reported several cases of cure of lupus and Hodgkins' disease. The Tesla coil, in his opinion, is more powerful than the static machine. A moderately low vacuum is indicated for surface treatment, a high vacuum for internal growths. A month's trial, at least, is necessary for any definite conclusion as to the efficacy of the rays.

Conservative Surgery of the Hands and Feet.

DR. W. L. DORLAND, Pueblo, reported several cases illustrating that conservative treatment in all injuries of the extremities is very desirable, since the vascularity of the organs is conducive to reparatory processes. Free incisions, moist gauze, drainage and aluminum acetate were the means employed.

Out-Door Treatment of Tuberculosis.

DR. FRANK E. WAXHAM, Denver, believes in tent life for the cure of tuberculosis, but he believes also in rest, comfort and abundance of good food. The best results will be obtained in that climate which will permit sleeping in a tent the year round. New Mexico, Arizona and Colorado permit out-door life day and night. For some patients, however, the climate of Colorado is too severe, and the summers in Arizona and New Mexico too hot. He advises, therefore, the judicious shifting of patients.

NEW YORK STATE MEDICAL ASSOCIATION—FOURTH DISTRICT BRANCH.

Eighteenth Annual Meeting, Held at Chautauqua, July 23, 1902.

President, Dr. Charles A. Wall, Buffalo, in the Chair.

Necessity of Organization.

DR. CHARLES A. WALL made a few remarks on the great necessity of organization and the value of the support of such an excellent journal as THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.

DR. ALVIN A. HUBBELL, president of the New York State Medical Association, was pleased at the gratifying attendance and praised the Chautauqua County Medical Association, stating that it had the largest proportionate membership of any society in affiliation with the state association. Success rests with the unit of the state association, which is the county association. He stated that the state association was in a prosperous condition, and that the last meeting was very successful, and urged that in order to insure a continued success all members pay their annual dues promptly.

DR. FREDERIC HOLME WIGGIN, New York City, was pleased at the large attendance, and in order to make clear what becomes of the annual dues stated that among other expenses paid are those of the business office, the publication and distribution of the *New York State Medical Journal* and the "Medical Directory of New York, New Jersey and Connecticut," and stenographers for the chairmen of standing committees. The directory elevates the standing of the medical profession by thoroughly investigating statements. In some cases statements by physicians of affiliation with societies, especially the American Medical Association, were not found to be true.

Papers Read.

DR. JOSEPH BURKE, Buffalo, read an interesting paper on "Congenital Narrowness of the Aortic System," which was discussed by Dr. Julius Ullman, Buffalo.

DR. ALFRED T. LIVINGSTON, Jamestown, read a paper on "The Broad Therapeutic Application of Ergot," which was discussed by Dr. Eli H. Long, Professor of Therapeutics, University of Buffalo.

DR. WISNER R. TOWNSEND, New York, read a paper illustrated by radiographs, on "The Differential Diagnosis of Diseases of the Hip-Joint," which was discussed by Drs. William C. Phelps of Buffalo, and William M. Bemus of Jamestown.

DR. FREDERIC HOLME WIGGIN, New York, read a paper on fecal fistula, which was discussed by Drs. Eugene A. Smith and Marcell Hartwig, Buffalo.

GROVER W. WENDE, Buffalo, read a very interesting paper on "The Pathology and Etiology of Eczema," in which it was shown that eczema is a microbic disease, not due to an organism, but to the toxins of the *staphylococcus pyogenes aureus*. The paper was discussed by Dr. Alfred E. Diehl, Buffalo.

Election of Officers.

The election of officers resulted as follows: President, Dr. J. William Morris, Jamestown; vice-president, Dr. Bernard Cohen, Buffalo; secretary, Dr. William I. Thornton, Buffalo; treasurer, Dr. James Burke, Buffalo; and delegates to the convention of the New York State Medical Association, Drs. Arthur G. Bennett, Buffalo, and Thomas D. Strong, Westfield.

Therapeutics.

[It is the aim of this department to aid the general practitioner by giving practical prescriptions and, in brief, methods of treatment for the diseases seen especially in every-day practice. Proper inquiries concerning general formulae and outlines of treatment are answered in these columns without allusion to inquirer.]

Diarrhea.

In reviewing the remedies for diarrhea Sheffer, according to *Amer. Med.*, divides them into two classes: Those which diminish peristalsis and those which decrease intestinal secretion. Diminished peristalsis may be best obtained by the use of opium or opium preparations. Among the most active are: powdered opium given in the dose of from one-sixth to one and a half grains; wine of opium in the dose of from five to thirty drops; and the camphorated tincture of opium which is given in the dose of from one half to four drams. The opiates are indicated in intestinal catarrh, due to cold, accompanied by violent abdominal pain; also in diarrhea due to the absorption of erosive substances. The astringents which decrease intestinal secretion are: Bismuth subnitrate which has given excellent results in the dose of from thirty to sixty grains in children and from two to three drams in adults; when a more active antiseptic is desired, bismuth salicylate in the dose of from one-half to two drams; as an antacid and absorbent, calcium carbonate in doses of from fifteen to seventy-five grains. Tannin may be used in doses of from one to seven and a half grains, but catechu or rhatany are usually substituted for it, as they are less disagreeable to the taste. Tannigen, a combination of tannin and acetyl, is given in the dose of from one to five grains to children, three or four times a day. Tannopin is given in doses of from four to eight grains, three times a day. Astringents are indicated when the diarrhea shows a tendency to chronicity depending on an intestinal catarrh of slow progress or on an ulcerative process. Tannigen and tannopin are much preferable to tannin in the treatment of these conditions because the appetite and normal gastric digestion are not disturbed.

In the acute forms of diarrhea Shoemaker recommends the following:

R.	Bismuth. subnit.	℥iiss	75
	Pulv. myristicæ	gr. xl	2 65
	Aq. cinnamomi		
	Syr. acaciæ, āā	℥ii	60

M. Sig.: Two teaspoonfuls every half hour or hour until relieved.

In cases of infantile diarrhea, when the stools are greenish, contain casein and are accompanied by abdominal pain, the following is recommended:

R.	Bismuth. subnit.	gr. xlv	3
	Liq. calcis	℥iss	6
	Syr. aurantii	℥ss	15
	Aq. feniculi	℥ii	60

M. Sig.: One teaspoonful every two hours; or:

R.	Bismuthi subnit.	gr. xlv	3
	Syr. aurantii	℥ss	15
	Inf. calumbæ	℥ii	60

M. Sig.: One or two teaspoonfuls every two hours.

Acne.

The chief causes of acne, according to the *Indian Med. Record*, are some disturbances of the system at certain periods of life, dyspepsia, debility, and in females, disorder of functions of the generative organs. The following treatment is recommended:

R.	Bismuthi subnit.		
	Ung. hydrarg. ammon.		
	Ichthyol, āā	℥ii	8
	Vaselini	℥iiss	75

M. Sig.: Apply locally; or:

R.	Naphthol	℥i	4
	Saponis viridis	℥ii	8
	Sulph. precip.	℥v	20
	Vaselini	℥ii	8

M. Ft. unguentum. Sig.: Apply with a brush; or:

R.	Sulphuris loti	℥i	4
	Zinci oleatis	gr. xl	2 65
	Thymol	gr. vi	40
	Lanolini	℥i	30

M. Sig.: To be applied locally.

Certain Disorders of the Stomach.

Dr. A. Robin, as noted in *New York Med. Jour.*, in a clinical lecture on "Ulcer, Hyperchloridia and Carcinoma of the Stomach," states that a milk diet sometimes provokes hypersecretion and hyperacidity. In case of a burning sensation the patient should take one of the following in a little hot water:

R.	Pulv. vanillæ	gr. iii	20
	Sodii bicarb.		
	Magnesiæ (calcined), āā	℥i	4
	Sacchari		
	Cretæ prep., āā	℥iss	6

M. Ft. chart. No. xii. Sig.: One powder to be taken in a little hot water as indicated.

To prevent the formation of gas when a milk diet is prescribed the following is recommended by him:

R.	Ammon. fluoridi	gr. iii	20
	Aq. destil	℥x	300

M. Sig.: One teaspoonful after every second, third and fifth drink of milk.

When fermentation is accompanied by great pain, one of the following powders may be of service:

R.	Magnesiæ (calcined)	℥iiss	14
	Sodii bicarb.		
	Sacchari, āā	℥iiss	10
	Bismuthi subnit.		
	Cretæ prep., āā	℥ii	8
	Codeinæ	gr. xii	75

M. Ft. chart. No. x. Sig.: One to relieve pain once or twice a day.

[This powder should be given with care on account of the large amount of codein present.]

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To Prevent Sweating of Feet.

The following prescription is recommended by *Pract. Drug.* to prevent excessive perspiration of the feet:

℞.	Balsami Peruv.	xv	1
	Acidi formici	ʒi	4
	Chloralis hyd.	ʒi	4
	Alcoholis q. s. ad	ʒiii	12

M. Sig.: Apply by means of absorbent cotton.

The following has also been found to be of service in treatment of hyperidrosis of the feet:

℞.	Olei lavendulæ	m. xii	75
	Olei caryophylli	m. iv	25
	Tannoformi	ʒi	30
	Acidi borici	ʒiv	120

M. Sig.: Use freely as a dusting powder.

Ointment in Blepharitis.

Dr. Raimondo Ferro, according to an abstract taken from *Gazz. d. Ospedali*, has experimented with a number of remedies in the treatment of blepharitis, during the past few years. He states that local applications of solutions of iodin, silver nitrate and pyoktannin are of no value.

He recommends the following ointment, which has been of great service to him in the treatment of this disease:

℞.	Cupri sulphatis		
	Ichthyol, ää	gr. viii	50
	Vaselini albi	ʒi	30

M. Sig.: Cleanse the parts and apply locally.

Its use, according to the author, does not affect the cornea or conjunctiva, and so uniform are the results that he considers the ointment a specific in blepharitis. The ichthyol acts as an antiseptic and a stimulant, while the copper sulphate exerts astringent properties, reducing the congested sebaceous glands of the eyelids.

A Nutritive Lemonade for Febrile and Wasting Diseases.

The patient who is confined to liquid diet is dependent on a limited number of articles. R. W. Leftwich, in an abstract in *Merck's Archives*, states, in such cases, that milk, beef tea, whey, barley water and lemonade comprise about the entire bill of fare. Some of these preparations have little nutritive value while the patient soon grows tired of milk. He therefore suggests a white-of-egg lemonade, which is best prepared in the following manner: Two lemons; the whites of two eggs, one pint of boiling water; loaf sugar to taste. The lemons must be peeled twice, the yellow rind being utilized, while the white layer is rejected. Place the sliced lemon and the yellow peel in a quart jug with two lumps of sugar. Pour on them the boiling water and stir occasionally. When cooled to about the ordinary temperature of tea, strain off the lemons. When the lemonade is in full agitation by whipping, add slowly the white of egg and continue the whipping for two or three minutes. While still warm, strain through muslin. Serve when cold. The white of egg imparts a blandness which makes the addition of sugar almost unnecessary, and this absence of sweetness is greatly appreciated by the feverish patients.

This lemonade is a most excellent drink throughout the course of typhoid fever. This, however, would probably be contraindicated in Bright's disease and in gastric ulcer.

Medicolegal.

Weight of Artificial Leg in Injury Case.—In the personal injury case of Carrow vs. the Barre Railroad Company, the party suing was permitted to show the weight of the artificial leg which he had worn down to that time about his work, which was eight pounds. The Supreme Court of Vermont holds that this was not error. It says that it could hardly be called immaterial on the question of damages. If the court was to assume that the leg was heavier than it need be, and worn for the very purpose of making himself trouble, and thereby increasing his damages, of course it was inadmissible. But probably the court would not be justified in assuming that, and if it was true it was open to proof. The court can not take judicial notice of the weight of artificial legs, and could not assume that this one was heavier than need be. The party suing had dragged it about several months, and it was apparently one of the consequences of his misfortune.

Test of Criminal Responsibility—Moral Insanity.—The Supreme Court of Nebraska says, in Schwartz vs. State, where there was a conviction of incest, that on the defense of insanity the accused was, to some extent, supported by eminent medical experts; but the court is nevertheless well satisfied that the conclusion reached by the jury was warranted by the evidence, and should be approved. Capacity to comprehend the nature and moral quality of an act determines criminal responsibility. There is no other safe or practical test. It was entirely certain that the accused in this case did not have a well-balanced mind. He had an inherited tendency to insanity, and had in past years received treatment in a hospital for the insane. It seemed, too, that he had at times illusions and delusions, but these were not in any way connected with the crime in question. He had groundless fears, and heard voices in the air, but it was not in consequence of these things that he debauched his daughter. It might be conceded that his mental powers were impaired, and his conscience blunted, by disease, but that it did not render him legally irresponsible. If he understood what he was doing, and knew it was wrong and deserved punishment, the obligation to control his conduct and keep within the law was absolute. Having this degree of mental capacity, he could not allege the sway of a turbulent passion as an excuse for his crime. The doctrine of moral insanity or uncontrollable impulse, upon which counsel seemed mainly to rely, is not recognized in the jurisprudence of the state of Nebraska. In other words, the Supreme Court holds, as it itself says, that the generally accepted test of responsibility for crime is the capacity to understand the nature of the act alleged to be criminal, and the ability to distinguish between right and wrong with respect to such act. Moral insanity as a criminal defense is not recognized in Nebraska. One who knows abstractly what is right and what is wrong must, at his peril, choose the right and shun the wrong. He can not yield to a vicious impulse, and allege mere weakness of will as an excuse.

Classification and Reporting of Consumption.—When the case of the People vs. Shurly was before the Supreme Court of Michigan the first time, it was held, the court says, that the Michigan statute (2 Compiled Laws of 1897, section 4453) requires an attending physician to report cases of consumption, if consumption is in fact a disease which is dangerous to the public health. See THE JOURNAL of Oct. 27, 1900, volume xxxv, page 1112. On the second trial, numerous special questions were presented to the jury, who found that consumption is the most prevalent disease in Michigan, and causes more deaths than any other disease; that it is a disease dangerous to the public health; that it is contagious from man to man, but found that it is not, by reason of its contagious nature, a disease dangerous to the public health, and that it is not to be classed with such well-known diseases, dangerous to the public health, as smallpox, scarlet fever, measles, cholera and diphtheria. The jury also found the defendant guilty of failing to report a disease dangerous to the public health. The circuit judge, on this finding, set aside the verdict of the jury, and entered judgment for the defendant. The Supreme Court holds that there was a mistrial, reverses the judgment of the Circuit Court, and orders another new trial. It says that the question, whether consumption is to be classed with smallpox, scarlet fever, measles, cholera and diphtheria should not have been submitted to the jury. If the disease is contagious and dangerous to the public health, the law classifies it. It is altogether probable that this question led the jury away from the main issue, and made way for the answer that consumption is not, by reason of any contagious nature, a disease dangerous to the public health. Certainly it is difficult to reconcile such a finding with the findings which show it to be so fatal a disease that it is contagious from man to man, and that it is dangerous to the public health. Then, the circuit judge charged the jury: "If the verdict is for the people, it means that the statute relating to diseases dangerous to the public health has been enlarged or made to include consumption, and

that disease must participate within that statute. I will not say that it must participate with the same strictness, but it must be reported, name, age and condition. It must come reasonably within the same family as a contagious disease. If the statute is made to include consumption among the dangerous diseases to public health, the state and local boards of health may treat it in the same manner prescribed by the statute for the care and control of other specific diseases, kindred in their nature." The Supreme Court thinks that these instructions were misleading, and calculated to commit to the jury duties which the law casts upon the court. It is not correct, it holds, to say that, if consumption is found to be a dangerous disease, the statute has been enlarged by such finding. As held on the former hearing, if consumption is a disease dangerous to the public health, it is within the statute, as enacted by the legislature, and it follows that the statute has not been enlarged. The term is exceedingly unfortunate and misleading. Again, the circuit judge charged the jury that the statute generally prohibits a physician from disclosing any information while attending on a patient, which information is necessary to enable the physician to prescribe for the patient. The Supreme Court says that it is altogether clear that this statute is no defense in this case, if consumption is a disease dangerous to the public health. And while it might properly be cited to the court, in discussion of the question whether the statute was intended to include consumption, it could furnish no proper aid to the jury in deciding the question of fact involved. The circuit judge permitted an inquiry as to whether patients afflicted with consumption would be likely to give their consent to having their cases reported. The Supreme Court says that this opened up an inquiry in no way bearing on the issue being tried. It is altogether likely that patients afflicted with smallpox or other infectious diseases might object to having their cases reported, but it would hardly be contended that the physician could excuse his noncompliance with the requirements of the statute by showing a dissent in the particular case or generally.

Current Medical Literature.

AMERICAN.

Titles marked with an asterisk (*) are abstracted below. Clinical lectures and single case reports are omitted unless of exceptional general interest.

American Medicine (Philadelphia), July 26.

1 *Lobar Pneumonia in Infants. William Fitch Cheney.
2 A Case of Pancreatic Fistula of Three Years' Duration, with a Chemic Study of the Fluid Eliminated. Francis W. Murray and William J. Gies.
3 *The Great Importance of Drainage in Bullet Wounds of Intraperitoneal Viscera. L. M. Tiffany.
4 *Finger Tips Totally Lost: Their Reconstruction by Sponge Eduction. George E. Abbott.
5 Dietetic Treatment of Pulmonary Tuberculosis. D. Olin Leech.
6 *Iodipin-Phosphor. Roberts Bartholow.
7 Medicine and the Universities. Lewellys F. Barker.
8 Renal Surgery as Practiced by Professor James Israel. Nicholas Senn.

Boston Medical and Surgical Journal, July 24.

9 *Cancer of the Uterus. Maurice H. Richardson.
10 *The Present Status of the Operative Treatment of Cancer of the Uterus. W. L. Burrage.
11 *Operation for Cancer of the Uterus. Edward Reynolds.
12 *Cancer of the Uterus. W. M. Conant.
13 *Intestinal Invagination in Infants and Children with the Report of a Case Successfully Treated by Laparotomy. Charles G. Cumston.

New York Medical Journal, July 26.

14 *Excision of the Knee for Vicious Deformity and Tuberculous Disease in the Adult. Virgin P. Gibney.
15 *Spinal Cord Conditions in Severe Anemias. Archibald Church.
16 *Some Clinical Observations in Intestinal Surgery. Ap Morgan Vance.
17 *Late Manifestations of Hereditary Syphilis in the Nose and Throat, with Reports of Cases. Willis S. Anderson.
18 A Case of Epithelioma of the Auricle and Auditory Canal. Thomas R. Pooley.

Philadelphia Medical Journal, July 26.

19 *The Treatment of Infantile Diarrheas of the Summer Season. James H. McKee.
20 *The Treatment of Acute Milk Poisoning—Summer Diarrhea. Thompson S. Westcott.
21 *The Summer Diarrhea of Children. W. L. Harris.
22 *The Treatment of Summer Diarrhea in Young Children. Maurice Osthelmer.
23 *The Mental Disorders of Children. (Concluded.) F. X. Dercum.

Medical Record (N. Y.), July 26.

24 *Typhoid Fever from Sources Other Than Water Supply. M. A. Veeder.
25 *Electrical Reactions of the Gastro-Intestinal Musculature and Their Therapeutic Value. G. W. McCaskey.
26 *Penetrating Injuries of the Eye, with or without the Presence of a Foreign Body in the Organ, and Their Treatment. J. Morrison Ray.
27 *Quantitative Changes in the Blood in Pulmonary Tuberculosis. Martin L. Stevens.
28 A Classical Example of Landry's Paralysis. William B. Pritchard.

Medical News (N. Y.), July 26.

29 *A Few Notes on Syphilitic Bubo. A. Ravogli.
30 Tobacco Heart: What Is It and What Its Treatment? Frank D. Maine.
31 *The Changes of the Leucocytes in Disease as an Aid to the Diagnosis and Prognosis. Thomas R. Brown.
32 A Study of Burns. Mary F. Munson.

St. Louis Medical Review, July 26.

33 *Dysentery—Report of Nine Cases. H. L. Njetert.

Pediatrics (N. Y.), July 15.

34 Case of Diphtheria; Intubation in Extremis; Recovery. Samuel G. Dabney.

Virginia Medical Semi-Monthly (Richmond), July 11.

35 *Practical Notes on Some of the More Common Diseases of the Skin. L. Duncan Bulkley.
36 A Case of Coca-Cola Poisoning. J. W. Preston.
37 Selections from the Materia Medica of Our English Ancestors Several Centuries Ago. (Concluded.) Edwin L. Morgan.
38 Experiment with Light in the Treatment of Pulmonary Tuberculosis. Robert F. Williams.
39 Keloids. Thomas W. Murrell.
40 Obsessions. William S. Stoakley.

Interstate Medical Journal (St. Louis), July.

41 Treatment of Infectious Suppurative Processes in the Peritoneal Cavity. L. Rehn.
42 The Control of Hemorrhage in the Removal of Pelvic Tumors. Herman E. Pearse.
43 The Etiology of Scarlatina. F. L. Class.
44 The Medical Profession as Contributors to General Literature. Geo. R. Highsmith.

Medicine (Detroit, Mich.), July.

45 The Intercommunicability of Human and Bovine Tuberculosis. Mazyck P. Ravenel.
46 *What Shall We Teach the People in Regard to Tuberculosis? George W. Webster.
47 *The Stokes-Adams Syndrome, with Report of Two Cases. Frank Billings.
48 *Feigning of Insanity by a Traumatic Lunatic for Personal Damage Reasons. James G. Kiernan.
49 Chancre of the Tonsils. William Cheatham.

Medical and Surgical Monitor (Indianapolis), July 15.

50 Hebephrenic Insanity. (Continued.) William B. Fletcher.
51 Report of Two Cases of Cholelithiasis. Thomas B. Noble.
52 Conclusions drawn from a Clinical Study of Two Hundred Cases of Organic Heart Disease Treated with the Suprarenal Substance. Samuel Floersheim.
52½ Osteomyelitis. S. C. Waters.
53 A Marvelous Recovery. Wm. B. Ryan.
54 The Hot-Air Bath. J. G. Nehrbas.
55 Two Cases of Intussusception. W. H. Link.

Annals of Gynecology and Pediatry (Boston), July.

56 The Ovarian Segment of the Utero-Ovarian Artery. Byron Robinson.
57 *Diphtheria from a Bacteriological Point of View. Irving A. Watson.
58 *Deep Transverse Arrest of the Head as an Indication for Forceps. Charles B. Reed.

Medical Herald (St. Joseph, Mo.), July.

59 Recent Scientific Studies Regarding the Etiology and Treatment of Consumption. L. H. Warner.
60 Concussion Cataract. Harold N. Moyer.
61 Observations on Tabes Dorsalis. F. E. Coulter.

American Journal of Obstetrics (N. Y.), July.

62 *Ectopic Gestation. James F. W. Ross.
63 *On the Etiology, Histology and Usual Course of Ectopic Gestation. Samuel W. Handler.
64 *Thyroid Extract in Painful Menstruation, etc. J. Coplin Stinson.
65 *Further Notes on the Uses of the Wax-Tipped Catheter in the Diagnosis of Stone in the Kidney or Ureter. Howard A. Kelly.
66 *The Medical Side of Gynecology. Edward W. Jenks.
67 An Anencephalic, Hemisoid Monster. A. Ernest Gallant.
68 Pseudo-Pregnancy. W. S. Smith.

Woman's Medical Journal (Toledo, Ohio), July.

69 President's Annual Address, State Society Iowa Medical Women. Margaret E. Colby.
70 The Differential Diagnosis of Some Eye Troubles. Lily Kinnier.
71 Ablatio Placentæ. Josephine Wetmore.
72 Sanitarium Methods on Private Practice. Mary L. Neff.
73 Auto-Intoxication. Adele Fuchs.

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Post-Graduate (N. Y.), July.

74 Laparotomy During Early Pregnancy—Labor at Term. A. Lever Axis Traction Forceps. Reuben Cronson.
75 Some Practical Points on Sanatorium Treatment of Pulmonary Tuberculosis. J. Edward Stubbert.
76 Acute Lobar Pneumonia in Children. Augustus Caille.
77 The Dispensary or Home Treatment of Pulmonary Tuberculosis. John F. Russell.

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78 A Medical Career Extending Over Fifty Years. Philip A. Knight.
79 Wounds and Their Treatment in the South African Campaign. Fred S. Beaty.
80 Puerperal Septicemia. C. L. Barber.
81 *Sciatica and Its Treatment. Seth C. Felt.

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82 *Symptoms, Signs, Diagnosis, Prognosis and Palliative Treatment of Prostatic Hypertrophy. Lewis Schooler.
83 *The Pathology and Etiology of Prostatic Hypertrophy and Suprapubic Drainage as a Method of Treatment; Prostatectomy and Myomectomy Recommended. A. C. Bernays.
84 Suprapubic Prostatectomy. C. H. Mayo.
85 *The Indications and Limitations for the Bottini Operation. Louis E. Schmidt.
86 Two Cases of Cysts of the Broad Ligament Complicated with Myxoma. Edward Hornlbrook.
87 Sarcoma of the Uterus. D. S. Fairchild.
88 Synchronous Bilateral Traumatic Pulmonary Hemorrhage. R. Harvey Reed.

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89 Report of a Case of Removal of Stomach for Cancerous Growth. Charles S. Wright.
90 Suppuration of the Middle Ear. L. W. Snow.
91 Ethics. W. J. Rothwell.

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92 *The Suprarenal Gland and Its Preparations in Ophthalmic Practice. E. de Schweinitz.
93 *The Use of Suprarenal Gland in Diseases of the Nose and Throat. D. Braden Kyle.
94 *The Rational Treatment of Movable Kidney and Associated Ptoses. A. Ernest Gallant.
95 Antagonisms of Cocain and Morphin, Especially Their Actions upon General Metabolism, and the Employment of Cocain in Morphin Poisoning. (To be continued.) Edward T. Reichert.
96 *The General Management and Constitutional Treatment of Tuberculosis of Bones and Joints—Special Reference to the Use of Tents. H. P. H. Galloway.
97 *Internal Derangement of the Knee-joint. Frank E. Peckham.
98 Notes on the Treatment of Urethritis. E. H. Siter.

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99 Lues Venerea. Henry A. Robbins.

Merck's Archives (N. Y.), July.

100 Therapeutics of the Glycerophosphates. H. A. West.
101 A Monograph on the Use of Cinnamic Acid and Sodium Cinnamate in the Treatment of Tuberculosis. William J. Robinson.
102 An Index of Diseases, Alphabetically Arranged, with Their Modern Treatment. (Continued.) G. Bjorkman.
103 The Place of Drugs in the Treatment of Stomach Troubles. Boardman Reed.

Medical Mirror (St. Louis), July.

104 *State Medicine, Past, Present and Future. J. M. Emmert.

Kansas City Medical Record, July.

105 The Language of Pain. B. E. Dawson.
106 The Significance of Albuminuria in Pregnancy. George C. Mosher.

Occidental Medical Times (San Francisco), July.

107 *Perineal Prostatectomy. George Goodfellow.
108 Extensive X-Ray Lesion Treated by Excision and Skin Graft, and a Grittis Amputation of the Thigh on the Same Patient. T. W. Huntington.
109 Conscious Simulations in Hysteria. L. H. Twitchell.
110 Alcoholic Psychoses in Women. H. E. Sanderson.
111 *Misplaced Pregnancy in General Practice. W. A. Briggs.
112 Oöphorectomy: Its Effect on the Mind and Nervous System. Walter Lindley.
113 Appendicitis. J. Henry Barbat.

Journal of Medicine and Science (Portland, Me.), July.

114 The Influence of Flies in Spreading Typhoid Fever. C. E. D. Lord.

Alabama Medical Journal (Birmingham), July.

115 Osteopathy Is the Practice of Medicine—Decision of Supreme Court.
116 The General Practitioner as a Gynecologist. Robert J. Redden.
117 Dysentery. B. E. Graham.
118 Albuminuria in Pregnancy. T. A. Casey.
119 Gunshot Wound of Abdomen—Complicated with Chronic Appendicitis—Recovery. J. M. Watkins.
120 Diffuse Nephritis, Acute and Subacute, with Its Medical Treatment. F. G. DuBose.

Pacific Medical Journal (San Francisco), July.

121 Address to the Graduating Classes, College of Physicians and Surgeons, June 25, 1902. W. F. Southard.
122 *The Initial Symptoms of Insanity and Its Physical Basis. Ernest Hall.

Medical Sentinel (Portland, Ore.), July.

123 Spotted Fever. G. T. McCullough.

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124 Insanity. E. D. Bondurant.
125 General Diagnosis—With Report of Two Cases. J. F. Burnam.
126 Intestinal Obstruction. S. S. Tam.
127 Gunshot Wound of the Abdomen—Perforations of Intestines—Recovery. P. J. M. Acker.
128 Pericardial Effusions and Their Surgical Treatment. L. L. Hill.
129 Mastitis. O. L. Shivers.

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1. **Lobar Pneumonia in Infants.**—According to Cheney this condition is probably more frequent than supposed in the first one or two years of life. Its onset is rather obscure, but there is usually a positive history of sudden change in the child's condition. The temperature has risen and the breathing increased in rate, also accompanied with a little moan or grunt at the expiration, which is typical of lobar pneumonia in infants. The cough is apt to be suppressed. The disease runs a very similar course to that of adults. Persistence of the fever, of the rapid pulse and of the respirations, generally mean complications. The physical signs are mainly limited to auscultation, intensity of the breathing sounds, the relation of inspiration to expiration, their quality, the harsh, tubular, bronchial quality of the breathing over a certain area that particularly attracts attention, the prolongation of expiration, and, most important of all, the presence of clicking or cracking râles over a certain area of the lung, at the close of inspiration. The diagnosis is rarely troublesome and the prognosis almost invariably good if the child is given a fair chance. The main point of treatment is to preserve the strength and nutrition. No antipyretics should be used. Cold baths or sponging is better, with a little opiate for cough, and frequently this is all that is required. In cases of prostration with pulse above 150 and a tendency to stupor, alcoholic stimulants may be indicated or strychnin in doses of 1/400 to 1/200 gr., according to the age of the patient, every four to six hours, and atropin in doses of 1/2000 to 1/700 at the same intervals. For the collapse that is apt to occur at the crisis, the best treatment is the hot mustard bath, followed by vigorous rubbings. It is important to avoid anything that may do harm.

3. **Drainage in Abdominal Wounds.**—Tiffany advocates the use of drainage in bullet wounds of the intraperitoneal viscera, together with the free use of normal salt solution by enema or subcutaneous infusion if necessary, and free outlet by gauze from the peritoneal cavity. We should fill the patient's vessels—overfill them—with salt solution and make free transfusion into the peritoneal cavity possible, from whence the gauze drain will remove it.

4. **Sponge Eduction.**—The method described consists in using sponge grafts, cutting across the tubes, and encouraging granulation. Abbott describes his method of building up the stump of a finger by this method. The sections of sponge should be one-eighth, one-sixteenth to one-thirty-second of an inch thick, thoroughly sterilized. After being applied they should be kept wet with normal salt solution and be removed after a few days so that they will not get too firmly attached. He knows of no method that will so thoroughly change an abscess cavity, or an ulcer, or any part that has been curetted because of a depraved base into a healthy granulating surface as by the sponge graft or sponge eduction method. By it, lost surfaces and lost finger tips may be restored to the extent of half an inch or more.

6. **Iodipin-Phosphor.**—This substance contains 1/50 of a grain of phosphorus, in 10 minims of iodipin of 25 per cent. strength. It is a dark reddish-brown liquid having an odor of garlic, and in Bartholow's experience has been an effective drug. It produces some smarting and burning at the time, but this does not last long. The best place for the injection is the depression on either side of the spinal cord. It can be given internally in larger doses than the 20 minims, the ordinary hypodermic dose, but it is ordinarily not so affective. Without any pronounced systemic action, iodipin-phosphor promotes in a marked degree the nutrition, increases the body

weight, and removes or modifies the symptoms of various nervous affections not readily amenable to treatment, including spinal sclerosis, anterior and posterior, neuralgia, neurasthenia, gout, chronic rheumatism, etc.

9. **Cancer of the Uterus.**—Richardson's article is in the form of questions and answers. First, he asks under what conditions may permanent relief be expected from the removal of malignant growths and answers that it may be reasonable to expect it when the disease is confined to the uterus, especially when it has not reached the peritoneal surface or the vaginal mucous membrane from the cervix, and there is no involvement of the lymphatic nodes. 2. Is the removal of malignant growth advisable when a cure can not be reasonably expected and when the condition of the patient may even be aggravated, which he answers in the negative, excepting when it promises relief from hemorrhage, foul-smelling discharges, etc., and then it is justifiable. 3. Is the extirpation of the carcinomatous non-prolapsed uterus to be considered as one of the duties of the surgeon? He says it is always to be so considered. The best method will depend upon many circumstances. He is in favor of vaginal hysterectomy when the uterus is movable and the disease distinctly confined to the cervix and when the vagina is capacious. When the disease is confined to the fundus he prefers the abdominal method as likewise when the uterus is fixed, the vagina small and the fundus large. When it is necessary to dissect carefully the cervix and vaginal mucous membrane, and to excise with the cervix a broad margin of vagina, and when the uterus is more or less fixed and the vagina small, he performs the combined vaginal and abdominal operation. The special precautions by whatever route are avoidance of injury to the bladder, rectum, and more particularly the ureters and the avoidance as far as possible of contaminating the field with the discharge of the disease. A final precaution is absolute hemostasis. The dangers of the operation are suggested in the precautions. In his experience the cause of death from operation has almost always been uremia and occasionally exhaustion. In one or two instances he has seen pulmonary embolism following hysterectomy for fibroids. This can not be guarded against. The cases that can be operated upon, considering the location and extent of the disease, are those where the disease is confined to the uterus, if in that body, or to the cervix if in the cervix. Thickened masses, remote metastases, infiltrations about the ureters, infiltrations of the vagina, the rectum and the bladder are distinct contraindications. The number of cases, therefore, is exceedingly small that are suited for radical operation, possibly not one case in ten or possibly fewer, and no case should be operated upon where there is contraindication in the patient's general condition or in any other viscera. In at least 90 per cent. a satisfactory diagnosis can be made that operation is not feasible. In the remaining 10 per cent. dissection will show that in a considerable number of cases extirpation is not feasible and a successful issue is not to be expected. In others everything will favor good results. Yet sometimes disaster will follow the most promising prospects. A satisfactory diagnosis can best be made by the abdominal route. He holds that there are really no therapeutic indications after operation as there is no possible prophylaxis by medication or medical treatment. The least recurrence should be dissected out when such dissection is possible, but it can not always be detected. If after the inflammation has thoroughly subsided and everything is soft and lax, small nodules can be felt, these may be removed, though, as a rule, operations for recurrences are difficult and unsatisfactory. If at the end of three years there is no evidence of recurrence, a permanent cure seems probable. If at the end of five years there is no recurrence, the disease may be looked upon as permanently cured.

10. **Cancer of the Uterus.**—Burrage's conclusions are given as follows: "1. Absolute cure of cancer of the uterus by operation is rare. By the best methods of operating thus far produced a small proportion (5 to 10 per cent.) of cases are well five years after operation, and a smaller proportion ten years after. 2. The results of operations for cancer of the body are much more favorable than those for cancer of the cervix. 3. All cases of uterine cancer, except those advanced cases which have developed vesicovaginal or rectovaginal fistula, should be operated on, if not with the prospect of effecting absolute cure, to prolong life and relieve suffering. 4. In the early cases of cancer where the disease, as far as can be determined, has not gone outside the uterus and the patient is in good condition the best operation is the abdominal operation of Werder, because operating in this way the operator is able to form a judgment as to the condition of the broad ligaments, ovaries and tubes and pelvic lymph glands by sight and touch, and the danger of implanting carcinomatous tissue is reduced to a minimum. 5. In the advanced cases where the disease has gone outside the uterus, in those patients who are in too poor condition to withstand an abdominal operation, and in very stout patients, vaginal hysterectomy or curetting and cautery are to be chosen."

11. **Operation for Cancer of the Uterus.**—Reynolds thinks that operation is justifiable if it is only to relieve the disgusting discharge. So far as he is concerned the other indications are not much different in recurrence than in the primary operation. He suggests the great importance of educating the laity to seek advice with the first suspicious symptoms and remarks that while a pathologic diagnosis is not always possible, when careful and repeated curettement at the hands of an expert have failed to arrest the hemorrhage and other uterine discharges from an enlarged but perfectly movable uterus, it is for the patient's interest that the uterus should be removed, specially in those nearing the menopause. Since the immediate mortality of panhysterectomy has been larger than that of other operations, and it has not yet been shown that its remote results are enough better to justify its performance, therefore he thinks it unjustifiable and unadvisable, but he holds as regards the choice between the abdominal and vaginal routes that the abdominal route is easier, nicer and more complete and a more satisfactory procedure. In enfeebled women vaginal operation being attended by almost no shock, outweighs other disadvantages, and it should be the operation of choice in such cases.

12. **Cancer of the Uterus.**—Conant thinks if our diagnosis of adenocarcinoma of the uterine body is made early we may expect a very large percentage of cures to follow the operation. In the squamous-celled variety with an early diagnosis and the disease confined to the cervix with no evidence of involvement of the broad ligament, we may expect a large percentage of cures provided the operation of panhysterectomy is performed. The operation, however, is a formidable one and is likely to be followed by considerable mortality. The prolongation of life and increased comfort are often sufficient, however, to make it advisable, even if a cure can not be expected. He says in all cases of cancer which are seen early, either of the cervix or of the fundus, where nothing can be felt outside the uterus, a radical operation should be performed.

13. **Intestinal Invagination in Infants.**—This is the most probable cause of intestinal occlusion in children, and is practically the only cause. Cumston reviews the methods of treatment and diagnosis. He remarks that rectal and vaginal examination should never be overlooked. From statistics he thinks it shown, at least for the time being, that the results of either medical or operative treatment are not particularly brilliant, though the reason for this is that the large majority of cases do not come under the surgeon's care early enough. In operations performed as soon as medical measures are found of no avail quite favorable results could be expected. He reviews a long list of cases from the literature and reports two of his own observation in which one was followed by recovery.

14. **Excision of the Knee.**—Gibney opposes the idea that a partially ankylosed knee is as good as one that is synostosed. When a good bone union can be secured by operation the patients have little fear of disturbing the union; whereas, with a partially ankylosed knee, falls and sprains have made them timid and fearful as to the condition. He therefore recommends excision and bony union and reports cases where he thinks it has been of value for the relief of various deformities of the knee, especially those requiring appliances for tuberculous conditions without any evidence of suppuration.

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15. **Spinal Cord Conditions in Anemia.**—Church describes the conditions of involvement of the cord in connection with anemic states. These may occur not only in classical pernicious anemias, but in cachectic states of long duration attended by toxic factors, and are much more frequent in women than in men. The symptoms are commonly obscure and are frequently entirely overlooked by the practitioner who is interested in the general condition. These patients almost invariably complain of disturbance of sensation, numbness or tingling. Ordinarily the muscles do not waste more than might be expected. There is often a mental change, optic nerve alteration, etc., and the case may advance to cause death by bulbar involvement. The value of the treatment of the anemia in these cases is dwelt upon and some six cases are reported.

16. **Intestinal Surgery.**—Vance reports several cases of intestinal surgery and says in conclusion that the best suture material for all intestinal work is catgut. An ordinary round needle can be used, a milliner's or hatter's needle to be preferred. The best stitch is the Lembert or some modification. Success will be in proportion to the early time after the receipt of the injury in which we begin our efforts at repair and the rapidity with which we do the work, with minimum amount of insult to cavity contents. The catgut is absorbed and out of the way sufficiently early to prevent its acting as bridge-work for organized lymph, which tends to narrow the lumen of the canal. This does occur when silk is used. When a man has qualified himself to do rapid needle work by practicing on dogs, he can do just as perfect and rapid anastomosis as can be done by any other mechanical aids. He advises aspiring intestinal surgeons to spend less time tinkering with mechanical contrivances and to pay more attention to vivisection.

17. **Hereditary Syphilis.**—Three cases are reported by Anderson, showing unusual forms of syphilitic disease, and in which the lesions developed at puberty. All were females. In the first case there was a distinct history of syphilitic disease. Evidences were plainly visible in the eye and teeth. In one case there was no positive sign, but suspicious family history with some uncertain symptoms made the diagnosis probable. The last case was absolutely without history, but antisyphilitic treatment strengthened the diagnosis.

19. **Summer Diarrhea.**—McKee reviews the treatment of summer diarrhea, favoring a change of environment and diet, and the use of evacuations of the bowels, and holds that possibly we have gone a little too far in our condemnation of intestinal antiseptics. He thinks, therefore, salol may be of some value. Opium is rarely required, but may be needed at times. While enteroclysis has been abused, in its proper use it still remains of value. Hypodermoclysis is also useful in certain cases, especially of the hydrocephaloid type. Sterile normal salt solution should be of higher temperature than the body and should be introduced in small amounts, two to four ounces. Alcoholic stimulants may occasionally be valuable where marked prostration is present. A cold pack is the best agent we possess to combat the effects of high temperature. In various complications, such as pneumonia, nephritis, etc., the indications should be met as they arise. In convalescence we can give tonics such as strychnin, arsenic and iron in small quantities. Our best efforts should be directed toward prophylaxis, but when this fails, the essential principles of treatment are agreed upon by therapeutists.

20. **Milk Poisoning.**—Under this term Westcott includes the acute summer diarrheas of children and insists on the importance of reduction of food and the withdrawal of fresh milk for from five or six days to a week and of not making the error of returning too early to the ordinary diet. In convalescence a temporary resort to partial or complete wet nursing may be useful. In the main his points of treatment agree with those of the preceding author.

21. **Summer Diarrhea of Children.**—The importance of prophylaxis is dwelt upon by Harris. The first thing he does when called into a case is to stop the milk at once, purge out the intestinal canal, even when there has been a profuse evacuation. The only thing in drugs he uses is bismuth in some form, the subnitrate or subgallate. He uses opium only when positively indicated and always alone. He rarely finds it necessary to use any other drugs. Irrigation of the colon exhausts the child and this is the reason why it is not so much used as formerly. Absolute rest is necessary; rocking the child is bad. Cholera infantum should be treated as other forms of diarrhea. The surface temperature should be restored by hot applications and enemata of hot salt water should be given. Hypodermic stimulation is needed. Morphin and strychnin and brandy act well here. He specially mentions the value of normal salt solution hypodermically to get the poison out of the system. When he resumes the milk diet he begins with a very dilute mixture and predigests it. When the child is breast-fed the question of diet is by no means settled. It is impossible to regulate the quality and quantity of breast milk and the anxiety on the part of the mother does not improve the condition. He also mentions the over-estimation of the importance of fresh air, and in closing says he wishes to specially impress the following points: "First, that summer diarrhea is to a great extent a preventable disease, and it is our duty to do all we can to instruct the mother and nurse in the care and feeding of children. Second, in our treatment of summer diarrhea we should always stop the milk, give a purge and then carefully regulate the diet for a few days even in the simplest and mildest cases, and in this way we will prevent many a case of the more serious forms of diarrhea. The treatment of the first few days is the most important in all cases, and even the simplest cases should never be neglected under the delusion that it is natural for a teething child to have diarrhea."

22. **Summer Diarrhea.**—Ostheimer speaks of the value of the immediate withdrawal of food and also says we have gone to the extreme against the use of enteroclysis, which is indicated when great prostration exists with evidence of intoxication. Gastric lavage is indicated when vomiting persists. Few drugs are necessary. He finds benefit from calomel in 1/10 gr. doses with a little salol and sodium bicarbonate every one half-hour for ten doses. When there is no vomiting, from one to four teaspoonfuls of castor oil is given. In 100 cases this treatment was successful in 97 in three to five days without other medication. If frequent bowel movements persist, however, bismuth subnitrate, 10 to 20 grains, every three hours was useful, and when combined with ½ grain of salol, seemed to help the fever. Opium should never be given until later in the condition or when marked nervous symptoms demand it and in very small doses, ¼ to ½ minim once in three hours.

23. **Mental Disorders of Children.**—In this article Dercum describes the types and symptoms of dementia precox, both the hebephrenic and the katatonic types and remarks on some of the difficulties of diagnosis. He credits vagabondage in early life often to this condition. The prognosis varies. It is more favorable in the katatonic than in the other type. In some of these cases, however, the degree of final dementia is but slightly marked. The other forms of insanity mentioned are the juvenile paretic, hysterical and the epileptic insanities. The general treatment should be good nutrition, regulation of functions, tonics. The treatment is still limited to the application of general principles.

24. **Typhoid Fever.**—Veeder claims that the burial of typhoid fever dejecta is one of the most important causes of its dissemination and that the germs may live for a long time in the soil. He reports instances of this etiology. It may thus be easily carried in the dust and disseminated, and flies also are liable to be carriers of the infection thus preserved. He speaks particularly about the dangers of picnic grounds in this way, where typhoid fever infection may be virulent while the water supply is excellent.

25. **Gastro-Intestinal Electrization.**—McCaskey gives the following as the conclusions from his study of the subject: "1. Electricity is a very valuable auxiliary in the treatment of muscular atony of the stomach and intestines, although adequate and properly balanced nutrition is an absolutely essential requisite. 2. Faradism is the preferable form of electric

treatment, the effect of galvanism being problematical and not so well adapted to the purposes of muscular stimulation. 3. The resistance of the mucous lining of the digestive tube offers no extraordinary obstacle to the passage of either current. 4. Electric currents, when applied either percutaneously or with one or both electrodes in mucous lined cavities, pass directly through the abdominal cavity and the walls or parenchyma of the contained viscera, thus following the lines of least resistance. 5. It is impossible to produce a physiological peristaltic wave of the stomach by any method of electrical stimulation either experimentally or clinically. 6. Intragastric Faradization, and possibly the percutaneous application, produce an obvious increase of tonicity of stomach wall, with palpable change of stomach, and slight, but measureable, shrinkage in volume. 7. Intracolonic Faradization, and especially if the opposite pole is in the stomach, if continued several seconds, produces active intestinal peristalsis. 8. Localized contraction of both the intestinal and gastric musculature can be produced by local application of a concentrated current upon the mucosa; if continued, it will incite peristalsis in the intestines, but not in the stomach."

26. **Wounds of the Eye.**—Morrison discusses the management of wounds and penetrating injuries of the eyeball, insisting on the importance of restoration of the parts that can be thoroughly cleansed and restored and the possibility of the approximation of the lips of the wound. Here a pressure bandage to produce immobility of both eyes is of great advantage, for as the aqueous humor reforms, the corneal flaps may fall into proper position and the wound unite kindly. If this does not appear possible a suture may be employed. When the wound involves the sclera overlying the ciliary body the necessity for excising the protruding tissue is far greater than when the iris is alone involved. He advises a silk suture passed well into the episcleral tissue and conjunctiva. Sutures that penetrate the sclera are a source of irritation, and catgut has not proved reliable. He thinks we do not attach the proper amount of importance to the grave possibilities of incarcerated iris, especially when found at the sclero-corneal margin with protrusions forming a cystoid cicatrix. He speaks well of the method of covering the incision with conjunctiva as advocated by Pagenstecher and others. The best local application to limit reaction is cold, but when infection occurs, heat shortens the active inflammatory stage. He believes in the use of a magnet to remove foreign bodies. The advantage of a quick extraction far outweighs in importance the knowledge of the exact location of the foreign body. He would not wait for the *x*-ray, but would apply the magnet early if the object is magnetizable. The question as to sympathetic ophthalmia is raised. He thinks it less frequent than one would imagine from the literature. The decision as to whether to enucleate or not depends upon the circumstances. If the wound has been treated in a proper surgical way and it heals kindly without septic infection, the danger of the fellow eye becoming involved is not great, and the eye may have still some uses. He advises wise conservatism in dealing with injured eyes that have a chance for sight and are not the seat of an inflammation.

27. **Blood in Tuberculosis.**—The following is the summary of Stevens' findings in blood examination in pulmonary tuberculosis: "The number of erythrocytes is usually higher than the appearance of the patient would suggest, amounting in many cases to a normal count. A low count, when present, is suggestive of low resisting power, or an unfavorable complication. The usual explanation as to the cause of blood concentration is not fully confirmed by facts. There is a true oligaemia in the majority of the cases. The hemoglobin and the corpuscle worth are so uniformly subnormal as to justify the conclusion that anemia is a characteristic of pulmonary tuberculosis. The specific gravity is low, but a little higher than corresponds with the hemoglobin. The number of leucocytes varies from one-half to four or more times the normal number, depending upon the stage of the disease, the character of the infection, the resisting power of the individual, and the presence of complications. In any given case their number may have both diagnostic and prognostic import."

29. **Syphilitic Bubo.**—Under this name Ravogli describes the non-inflammatory swelling of the lymphatic glands due to an infiltrated process which is characteristic of syphilis. The lymph glands are in a measure overwhelmed by the invasion and can not exercise their defensive function, but become themselves diseased. They may return to their normal size, though in many cases they can be felt as small hard knots on account of the sclerotic process which has taken place. For treatment he recommends local mercurial inunctions, or in obstinate cases the injection of a few drops of gray oil into the subcutaneous tissue. They will gradually disappear without surgical interference.

31. **Leucocytes in Disease.**—Brown reviews the value of the blood count in disease, showing its usefulness in typhoid, in anemias, and the value of its absence in influenza and its distinct diminution in the abdominal type of the disease as deciding the diagnosis, also in the diagnosis of scarlet fever and measles. It is of special value in the prognosis of various disorders. He remarks that he has but very recently seen a case of acetanilid poisoning in a girl who took the drug secretly, where the leucocytosis reached 30,000 per c. mm., 12 per cent. of which were eosinophiles, and suggests that the blood count may be of value in other cases of secret drug addiction. The value of eosinophiles in trichinosis has been noticed by the author and others, and the recent observation by Courmont that there is a distinct leucocytosis of the neutrophilic type in rabies is especially remarked upon. In appendicitis he notices its importance as opposed to Deaver. He says besides this and numerous other surgical diseases, the presence or absence of leucocytes is of great assistance, as for instance, "in intestinal obstruction, where the entrance of gangrene and localized peritonitis is shown by an increase of the leucocytes; in differentiating abscess of the liver from malaria, duodenal catarrh or impacted gallstones, of which two interesting cases diagnosed by blood-examination have been reported by McLean; in diagnosing pyosalpinx from other pelvic conditions or from typhoid fever or malaria, osteomyelitis from rheumatism or neuralgia, while the lack of increase of leucocytes in uncomplicated tuberculosis is of aid both in differentiating the various forms of arthritis, and in determining the presence or absence of secondarily invading pus organisms. The presence of a marked leucocytosis associated with a diminution of red blood-corpuscles in the case of hemorrhage is of great help in determining the cause of shock, as well as in reaching a diagnosis of the various forms of internal hemorrhage. This, in brief, tells something of what the study of the changes in the leucocytes has done for the physician and the surgeon in diagnosing and treating diseases, and in helping each in arriving at a rational prognosis. It has rendered possible the diagnosis of a number of diseases, as the leukemias and trichinosis, besides assisting markedly in the diagnosis of many more. It has given valuable aid in the prognosis of all forms of infection and inflammation, as pneumonia, peritonitis, and appendicitis; in the anemias of scarlet fever, and in many other diseases. It has furnished us with the means of discriminating diseases which present clinical pictures of marked similarity, such as central pneumonia and typhoid fever, appendicitis and conditions with similar symptoms but with no infection, peritonitis and auto-intoxication from the intestinal tract, lymphatic leukemia and Hodgkin's disease, myelogenous anemia and Banti's disease, and many others. It has furnished the surgeon with a valuable diagnostic sign in all cases of infection and inflammation, besides being a criterion of great value in determining whether the process is diminishing or increasing. It has done these things and many more, but it is not infallible." It is not worthy of the blind abiding faith placed in it by some, but we should realize its advantages and its limitations.

33. **Dysentery.**—From the nine cases here reported, Nietert (St. Louis), concludes: 1. That the disease is highly infectious and fatal. 2. That the intensely acute cases occur in the lower class of laboring people. 3. That absence of the ameba from the stool should not mislead the observer. They may be lodged in the wall of the intestine and may cause a fresh manifestation of the disease at any moment. 4. Examination of

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the blood for leucocytosis should be made frequently during the course of the disease to detect complications. 5. The ameba coli and the bacillus of dysentery may be present at the same time and in the same patient. 6. The treatment of the disease is very unsatisfactory.

35. **Common Skin Diseases.**—Bulkley finds that out of 20,000 cases of miscellaneous skin diseases and of 120 different species, five diseases formed no less than 69 per cent. of the whole. These are: eczema, 32.01; acne, 21.96; syphilis, 6.58 (in public practice, 17.53 per cent.); alopecia, 4.67, and psoriasis, 3.82 per cent; total, 69.04 per cent. If one masters well the diagnosis and treatment of these five diseases he is able to treat three-fourths of the cases that come to hand. As regards the treatment of eczema, the only thing is to use one's intelligence in the individual treatment. It is always a disease of debility accompanied by faulty assimilation and disassimilation. He thinks the liver is often at fault. Urinary examination will reveal it not in the form of albumin or sugar but in other abnormalities. The parasitic nature he considers as exceedingly dubious, and not admitted by those who know most about the disease. The so-called seborrheic dermatitis of Unna, or dermatitis seborrheica, does often seem to have a parasitic element, but if this has really any relation to eczema, which many question, its causative parasite has not been sufficiently demonstrated. It is not known to be actively contagious. We must remember that many germs get into the lesions secondarily and are not the cause. The next most common eruption is acne in its various varieties, and here we must also study the individual as much as the local lesions. There is no specific for it any more than for eczema. Bulkley discredits the connection between acne and sexual disorders. It is true that it commonly develops at the time of puberty and is aggravated by menstruation, but there are other causes. He has rarely seen it influenced for good by any local treatment directed against the sexual disturbance. It also is a disease of faulty assimilation and disassimilation and this should be kept in mind. Syphilis is the next most frequent condition, which he thinks is more common than is generally supposed. It is not a venereal disease in all cases and the absence of any history of exposure should never throw one off his guard as to its existence. It is very difficult to get the history. The poison of syphilis may find entrance at any vulnerable point, and the importance of its specific treatment can not be too much emphasized. Alopecia is apparently a small matter, but we neglect it too much and turn it over to quacks. It frequently may be due to syphilis and there is a great deal of harm done by the advertisements of hair restorers. It is impossible to give an outline of the treatment for it; local stimulants may sometimes be necessary, but should be associated with constitutional treatment. Lastly, he mentions psoriasis, which he thinks is sometimes curable. The patient may seem to be in perfect health, and it is hard to say what constitutional treatment to advise. While some cases of psoriasis are found in the strumous states, the great majority are arthritic in nature and the gouty or rheumatic diatnesis must always be looked after, but he believes there is also a general debility or lowered vitality in this condition as in the others.

46. **Tuberculosis.**—Webster gives directions for the management of tuberculosis when it occurs, both for the patient and others, and advocates the use of local sanatoria, rigid laws on spitting and remarks that the disease is curable. Autopsies show that one-third of all persons have had some form of tuberculosis while only one-seventh die of the disease, and more than one-half, therefore, of all cases recover. A gradual loss of weight, rapid pulse and slight fever in the afternoon should excite suspicion of this disorder.

47. **The Stokes-Adams Syndrome.**—This symptom-complex, which consists in a permanent slow pulse with attacks of giddiness or faintness, transient unconsciousness or epileptiform seizures, is described by Billings, who reports two cases, one dependent on aneurism of the arch of the aorta and the other on fibrous myocarditis with associated senile arteriosclerosis. He holds this is not a pathologic entity, but a clinical symptom occurring in different pathologic conditions. As a symptom it indicates weakening of the heart. He remarks that we should not trust too much the radial pulse in the diagnosis. It may be slower than the cardiac beat. The prognosis varies according to the basic cardiovascular disease, and the latter should govern the treatment.

48. **Simulation of Insanity.**—Kiernan writes an interesting article on simulation of insanity, showing that it is not uncommon in the insane, and reports a case of medicolegal importance where this occurred.

57. **Diphtheria.**—The following propositions are held by Watson to be substantiated by experience and bacteriologic examination: 1. That true diphtheria can not exist without the presence of the Klebs-Loeffler bacillus, and that no case can be absolutely diagnosed as diphtheria until this is present. 2. That membranous anginas which may be fatal may be caused by the streptococcus pyogenes, the micrococcus of sputum septicemia and perhaps other forms. 3. That without a bacteriologic examination, the form of the infection can not be determined, though the clinical diagnosis may be correct in most cases. 4. That a bacteriologic examination should be made whenever practicable and negative results should not be accepted unless at least two or three are obtained on successive days. 5. That all cases having the clinical appearance of diphtheria should be treated as such from the beginning and until contra-indicated by successive negative examinations. 6. That anginas not dependent upon the Klebs-Loeffler bacillus do not require the establishment of a quarantine, or the attention of the health officers. 7. That bacteriologic examination for release from quarantine would insure better public protection and shorten the average period of isolation, and materially lessen the expenses in a great majority of cases. 8. While laboratory examinations are not infallible they are a great aid in assuring the family and showing the health officer the necessity or non-necessity for isolation, and in placing the whole management of the disease on a more scientific basis.

58. **Deep Transverse Arrest of the Head.**—Reed summarizes his conclusions as follows: "1. Deep transverse arrest of the head is a relatively common complication of labor. 2. The diagnosis is easily made from the position of the sagittal suture, and the fontanelles. 3. The normal termination of the case can not be waited for in most instances, but forceps should be applied as soon as it is evident that rotation will not occur spontaneously. 4. The blades should be applied in that pelvic oblique diameter toward which the occiput lies. 5. Location of the occiput must be determined before the blades are applied. 6. Traction and rotation must be simultaneous."

62. **Ectopic Gestation.**—Three points insisted upon by Ross are: 1. The less frequent rupture of ectopic pregnancy into the broad ligament than was supposed by Tait to occur. 2. The ease with which the condition can be diagnosed before rupture. 3. The frequency with which the condition occurs the second time in the same patient. He thinks abdominal pregnancy is not impossible and ovarian pregnancy ought to exist, if certain observations of Bischoff and Barry are correct. As to the etiology he considers that in most cases there will be found to have been a previous inflammation of the tube followed by a period of sterility. The symptoms, diagnosis, etc., are described at length and a large number of cases tabulated.

63. **Ectopic Gestation.**—Bandler's article is concluded in this issue. He points out the three types of tubal gestation which may occur: 1. The columnar in which the ovum is surrounded by mucous folds only, and here abortion is easy and of little danger. 2. The intercolumnar where the ovum may rest on the walls of the tube and the capsule be formed of mucosa and the villi at the placental side enter into the wall. Abortion, complete or incomplete, generally incomplete, is usually the rule, but rupture may occur. If the abdominal end is closed, a hematosalpinx or a tubal mole may represent the final outcome. In the centrifugal form the ovum sinks into the wall of the tube and an invasion of the wall and vessels by the villi may take place even up to the serosa. The cap-

sularis is formed by muscularis and mucosa and may rupture at its summit. The ovum practically eats up the wall. When no rupture has occurred and the abdominal end of the tube is closed, only the microscope may reveal the source of intraperitoneal bleeding. Even after the death of the ovum the villi can grow, and an active tubal mole is found with continued bleeding. The centrifugal form furnishes the majority of tubal ruptures. But the vast majority of these so-called tubal ruptures are either erosions or due to erosion by the perforating villi. He describes the course of the anomaly and reports several cases illustrating the types.

64. **Painful Menstruation.**—In a patient suffering from severe pain at the menstrual periods, Stinson gave extract of thyroid internally for obesity. She had been using the thyroid for several weeks when the menstrual period came on and she continued the medicine during this time, reporting that she had been completely relieved of all pain. Since that time she has escaped pain by the administration of thyroidin 1 gr. in capsule three times a day, given for two days before the period and increased to three grains twice a day during the period. Since this time he has repeatedly used the remedy in the treatment of similar conditions with pleasant results, affording perfect relief in over 80 per cent. of cases. Cases not relieved by thyroid or other medical treatment should be relieved by surgery.

65. **Wax-Tipped Catheter.**—Kelly remarks that the wax-tipped bougie still has a field in spite of the *x*-ray. Scratch-marks afford a valuable confirmation of the findings of the *x*-ray plates. The wax-tipped catheter serves to distinguish phleboliths about the vault of the vagina and in the pelvic veins from urethral calculi. It is useful also in cases of stout women where the *x*-ray findings are unsatisfactory and the repeated use of the *x*-ray is dangerous, and in cases of uric acid and uratic calculi, where the *x*-ray shadow is faint, causing doubt. Further, it is of use in extemporized, hurried investigations, when the *x*-ray apparatus is not convenient, and more especially in retrograde catheterization from the pelvis of the kidney downward in the course of a renal operation, to determine whether there are any calculi lodged in the ureter, also when there are fibrous or old inflammatory thickenings about the renal pelvis, which give a shadow on the photographic plate exactly like a stone.

66. **Medical Gynecology.**—Jenks thinks the medical side of gynecology is too little treated in our schools and that the importance of operative work is over-estimated. He notes the conditions due to derangements in the eliminating organs as simulating pelvic diseases, also hepatic conditions, etc.

81. **Sciatica.**—The treatment suggested by Felt for sciatica consists in the hypodermic injection of atropin, about 1/30 of a grain, and gradually increasing if necessary. He dissolves a grain of atropin in 100 drops of water and injects three drops a little above the patella, giving it at bedtime if possible. The effect is rather uncomfortable, but he allows his patients all the water they wish. If the symptoms produced subside within twelve hours the dose is not sufficient. It should be increased one drop at a time until the effect lasts twenty-four hours. He cautions to give the drug only in the evening and have the patient sleep down-stairs so that there will be no possibility of falling when under the influence of this drug. The doses are not repeated oftener than once in 48 hours and two grains of quinin three times a day are given with them to keep the temperature normal. He has treated 29 cases and out of that number permanently cured 22 by this method. Of the seven that were not cured some refused to continue the treatment and one, after taking three doses, attributed his cure to a clairvoyant.

82.—See abstract in THE JOURNAL, XXXVIII, p. 1274.

83.—Ibid., p. 123.

85.—Ibid., p. 1274.

92. **Suprarenal Gland in Ophthalmia.**—De Schweinitz finds the suprarenal preparations of value in hyperemia of the conjunctiva when it is due to local irritation, to relieve congestion, irritation and lacrimation caused by ordinary conjunctivitis and in combating blepharospasms and Fruehjahr's catarrh where they have a marked curative effect. They are useful in trachomatous pannus and various types of vascular keratitis and scleritis to enhance the action of cocain, atropin, eserin and pilocarpin, by promoting their absorption, using adrenalin preparations first, followed by the drug. Possibly, they reduce the tension in glaucoma, as has been pointed out by Bates and others. They are valuable to facilitate the introduction of lacrimal sounds, the preparations being first injected through the canaliculus, lessening congestion, to relieve ciliary pain, to modify and clear up certain opacities of the cornea following contusions and to produce a cosmetic effect. He thinks the adrenalin preparations have their advantages; they also have the disadvantages of occasionally producing marked irritation and occasionally subsequent hyperemia, so that he would advise the use of freshly prepared solutions of the dried gland if possible as more efficient, and if adrenalin is used it should be in a very weak solution.

93. **Suprarenal Gland in Nose and Throat Disease.**—Kyle reviews the testimonies as to the value of this drug in nose and throat diseases, and says that in his own experience in all conditions in which the remedy has been used probably 70 per cent. have been benefited, while in the others it has either been worthless or has produced irritating effects or brought about a condition worse than the original one.

94. **Floating Kidney.**—Gallant discusses this subject and describes the method of treatment by a properly-fitting corset.

96. **Tuberculosis of the Bones and Joints.**—Galloway insists on the necessity of the physician realizing that the patient troubled with tubercular disease of the bones or joints is a tuberculous patient. Only in accordance with this idea and its thorough definition in his mind will he be able to get a comprehensive grasp of the present and future needs of the case.

97. **Internal Derangement of the Knee-Joint.**—The operative treatment of this condition is considered necessary by Peckham only in cases where there is a floating cartilage or long piece of fringe, practically the same thing. In his experience the "giving away" of the joint is the most common symptom, but locking of the joint occurs almost invariably if the condition is allowed to go on untreated. The early treatment of the condition is rest in bed with some stimulating liniment followed by massage. Later, apparatus to prevent the slipping out of the cartilage may be used.

104.—See THE JOURNAL, XXXVIII, p. 1590.

107. **Perineal Prostatectomy.**—Goodfellow advocates this operation, with the patient in the ordinary lithotomy position and a median incision from the base of the scrotum to the margin of the anus, carried to the membranous urethra which is entered with the lithotomy knife and the opening extended into the bladder. The finger is then introduced, the staff removed, and the moderate flexion of the legs and thighs on the abdomen and thorax increased to as great an extent as possible, and then with the opposing hand over the hypogastrium the bladder is depressed, and the enucleation, beginning at the beak of the prostate below and working upward next to the bladder, is carried on, the time required for complete enucleation rarely being over five minutes, the resulting hemorrhage virtually nothing. If the bladder has been full of pus, sometimes it is washed out. No special drainage is provided for, the perineal incision sufficing. Formerly he used to pass a straight sound through the perineal wound into the bladder every other day for a week or more, to keep free drainage and in complicated cases this might be useful, but lately he has not found it needed. He has also found no value in the passage of sounds or catheters, allows his patients to get up as soon as they feel inclined to, and the urethra is generally closed within eighteen days. Frequently some urine is passed naturally within forty-eight to seventy-two hours, the quantity increasing as the wound closes until all is voided by the urethra. In twenty-four operations thus performed the results have been perfect. In answer to the question what becomes of the prostatic urethra, he says the greater part or all of it is removed with the gland, which in no manner

seems to affect the restoration of the continuity of the urethra nor the power of the bladder to retain and control its functions. The seminal ducts are not ligated, nor has he ever been compelled to ligate any vessels. The points he specially insists on in operation are the position and incision into the bladder. The former gives free access to the gland and bladder while the latter permits rapid ablation, also thorough exploration with the finger.

111. **Ectopic Pregnancy.**—Briggs reports several cases of tubal pregnancy and remarks that the ratio of this condition to normal pregnancy in his work has been about 1 to 250. In a large number, even a majority of cases, he thinks it is overlooked, but by careful examination it can be recognized before rupture and generally after rupture or abortion. The classical symptom-complex of tubal abortion and tubal rupture is entirely inadequate. The questions which arise are: 1. Does pregnancy exist? 2. If so, is it uterine or tubal? 3. If the pregnancy be tubal, is the tube still intact or abortion in progress or completed? Has rupture taken place? If so, is it extraperitoneal or intraperitoneal? The diagnosis of tubal pregnancy before rupture or abortion is based on: 1. The usual evidence of pregnancy, plus irregular uterine hemorrhages from the fifth week onward, the passage of decidua without fetus, tubal colic, the existence of an elastic, rapidly-enlarging tube corresponding in size with presumed period of pregnancy, and with the absence of tubal inflammation. Tubal abortion is to be diagnosed with more or less probability if, in the course of tubal pregnancy, a rupture and sudden increase of the pelvic tumor is coincident with the recurrent pelvic colic. A completed abortion may be inferred from a gradual diminution of the tumor following permanent cessation of the colic. The diagnosis of ruptured tubal pregnancy is based on evidence of tubal pregnancy, sudden, severe, even excruciating pelvic pain radiating into the abdomen, tenderness low down over the abdomen, due to peritoneal irritation, rather than peritoneal inflammation. If hemorrhage be rapid and profuse the symptoms of acute anemia, if slow and moderate, the evidence of a hematocele, and lastly, shock in proportion to sensitiveness of nervous system, severity of pain and loss of blood. The differential diagnosis between intra- and extraperitoneal rupture is difficult and uncertain. The rapid formation of a dense circumscribed tumor, presumably in the broad ligament of the side corresponding with the pregnant tube, coincidently with the evidence of rupture, would naturally excite suspicion, but does not warrant a positive diagnosis.

122. **Initial Symptoms of Insanity.**—Hall argues for his favorite opinions, claiming that less than 10 per cent. of the female insane in America have normal pelvic organs, and that at least 20 per cent. of the so-called chronic cases recover their reason and 15 per cent. are improved from removal of the physical disease. He holds that mental abnormality is much more frequently associated with pelvic disease than with disease of any other organs outside of the nerve centers and we should be always on the alert to find this condition.

FOREIGN.

Titles marked with an asterisk (*) are abstracted below. Clinical lectures and single case reports are omitted unless of exceptional general interest.

British Medical Journal (London), July 19.

1 *Some Anomalous Cases of Tabes Dorsalis. James Taylor.
2 Acute Non-suppurative Perinephritis. David Newman.
3 The Diagnosis of Diseases of the Sigmoid Flexure and Rectum. F. Swinford Edwards.
4 *Clinical Observations on the Action of Some Suprarenal Preparations. Stephen G. Longworth.
5 *The Functions of the Epiglottis. Knowles Renshaw.
6 An Analysis of Human Chyle. E. Wace Carlier.

The Lancet (London), July 19.

7 *Injuries of Nerves. Anthony A. Bowlby.
8 *The Causation and Prevention of Phthisis. Byrom Bramwell.
9 Some Rare Cases of Sarcoma of the Thyroid. P. L. Daniel.
10 Acetone Series of Products in Connection with Diabetic Coma. (Continued.) F. W. Pavy.
11 The Treatment of Intra-Peritoneal Abscess of the Appendix. F. C. Wallis.
12 Six Cases of Meningitis in One House, with Two Deaths. Edward H. Sweet.

Journal of Tropical Medicine (London), July 15.

13 Three Lectures on Bilharzia. Frank Milton.
14 Myiasis—The Lucilia Macellaria—The Screw Worm. John W. Lindsay.
15 Harrogate as a Health Resort for Tropical Invalids. P. A. Nightingale.
16 *Observations on Plague. (To be continued.) C. Terni.

Indian Medical Gazette (Calcutta), June.

17 The Frequency of Poisoning in Calcutta, with Some Illustrative Cases. C. J. Robertson-Milne.
18 Notes on Rupture of the Spleen. D. G. Crawford.
19 Crime in Insanity. G. F. W. Ewens.
20 Medical Examination in Cases of Rape. Arthur Powell.
21 Medical Evidence in India. A. G. Hendley.
22 Injuries Caused by Lathi Blows. R. K. Gupta.
23 Notes on Medicolegal Cases. W. D. Sutherland.
24 Perforation of the Stomach and Duodenum from Disease; A Case of Suspicious Death. J. T. Calvert.
25 Medicolegal Notes from Allpore. F. J. Daley.
26 The Differentiation Between Unmanipulated Crude Opium and Excise Opium. G. T. Birdwood.

Annales des Mal. Org. Gen.-Urin. (Paris), April to June.

27 (No. 4.) *Syphilis of the Bladder. Margoulies (Odessa).—Syphilis de la vessie.
28 (No. 5.) De la cystopexie en gynecologie. Nouveau procédé operatoire par la voie abdominale. U. Chiaventone (Milan).
29 (No. 6.) Etude de la distribution geographique de la lithiase urinaire. P. Sergulewsky. (Commenced in No. 3.)
30 *Les injections modificatrices dans le traitement de la tuberculose epididymaire. Bodanowicz (Biarritz).
31 La hernie de la vessie. Volturiez (Lille).

Annales de l'Institut Pasteur (Paris), June.

32 *Immunisation antirabique au moyen des injections intravasculaires du virus rabique. V. Krasmitski (Kiev).
33 *Sur un nouveau procédé de culture du tetanos. S. De Band.
34 Utilisation du carbone terniaire par les végétaux et les microbes. P. Maze.
35 Action of Dry Heat on Tetanus Spores and Toxin. V. Morax and A. Marie.—Action de la chaleur sèche sur les spores et la toxine tetanique.

Bulletin Acad. de Med. (Paris), July 1 and 8.

36 *Sur les phénomènes consécutifs à la résection du sympathetique cervical chez l'homme. T. Jonnesco and N. Floresco (Bucharest).
37 Mensuration graphique de la perméabilite des fosses nasales. A. Courtade.
38 Au sujet des mesures prophylactiques à prendre contre les maladies a trypanosomes. Laveran and Nocard.
39 *Weaning of Puppies and New Medical Suggestion. Lemaistre (Limoges).—Physiologie comparée. Du sevrage chez le chien. Ses peptones. Manière de se les procurer sans mutilation de l'animal.
40 Plague and Yellow Fever in 1901. Proust.—Sur la peste et la fièvre jaune en 1901.
41 Danger of Delay in Operating in Appendicitis. G. Dieulafoy. Attendre pour opérer que l'appendicite soit "refroidie," c'est exposer le malade à la mort.
42 Le gélo-diagnostic de la fièvre typhoide, du choléra, de la dysenterie et des eaux qui transmettent ces maladies. Chantemesse.

Bulletin Medical (Paris), May 31 to July 9.

43 (No. 44.) Monaco et Turbie. Stations climatériques. Onimus.
44 *Serum de Trunecek. Huchard.
45 (No. 47.) Nouveau procédé d'anesthésie gén. par le chlorure d'ethyle. A. Malherbe and J. Roubinovitch.
46 (No. 49.) *Fièvre typhoide apyrétique. G. Lemoine (Lille).
47 (No. 52.) Syndrome from Atrophic Retraction of Stomach Which Simulates Stenosis of the Esophagus. M. Soupault.—Syndrome simulant le rétrécissement de l'ésophage et du à la rétraction atrophique de l'estomac; 4 cas.
48 (No. 55.) *De la valeur des injections hâtives et massives des sérums immunisateurs dans les infections. E. Calmette.

Revue de Chirurgie (Paris), July.

49 Actinomycose d'apparence néoplasique du maxillaire inférieur. A. Poncet.
50 *Contusions de l'abdomen et ruptures de l'intestin par coup de pied de cheval. L. Cahier.
51 *Des cholérragies internes consécutives à la rupture des kystes hydatiques du foie et plus spécialement de la cholérragie intra-péritonéale. (Cholépéritoine hydatique). F. Dévé.
52 La hanche bote ou coxa vara des adolescents. R. Picqué.
53 Cas d' hémorragie cérébrale survenue au cours d'une anesthésie chloroformique. Bourcart.

Archiv f. Klin. Chirurgie (Berlin), lxvii, 2.

54 Favorable Influence of Hyperemia on Regeneration. E. Liek.—Ueber den Einfluss der arteriellen Hyperämie auf die Regeneration.
55 Die chron. recividirende Perityphlitis auf Grund von 200 Radicaloperationen. J. Koch.
56 Symmetric Senile Lime Deposits in Muscles of Thighs. H. Wolff.—Eine seltene Form seniler Verkalkung.
57 Zur Resection des Thorax wegen Neubildung. R. Trzebicky.
58 Microscopic Examination of the Gasserian Ganglion in Lexer's 15 Cases. H. Coenen.—Mikr. Befunde am G. G. in den 15 Fällen von Lexer.
59 Anatomy of Patella. Joachimsthal.—Ueber Structur, Lage und Anomalien der menschlichen Kniescheibe.
60 Operations on Seminal Vesicles and Vicinity. Kessler.—Ueber die Operationen an den Samenblasen und ihrer Umgebung.
61 Opening up the Heart After Trauma. H. Lorenz.—Die Blosslegung des verletzten Herzens.

62 Ueber Symptome und Diagnose der Blasensteine (Stone in Bladder). M. Melchior (Copenhagen).
63 (No. 3.) 8 Fälle von Nachblutungen. A. Frommer.
64 Das Problem der Carcinomätiologie. O. Israel.
65 Zur Symptomatologie der Rückenmarkstumoren (Tumors of Spinal Cord). M. Jaffe.
66 *Die Grenzen erfolgreichen Nierenexstirpation und die Diagnose der Nephritis nach kryoscopischen Erfahrungen. H. Kümmell.
67 Ueber Infectionen mit Gasbildenden Bakterien. P. Albrecht.
68 Zur Pathologie der Circulationsstörungen im Gebiet der Mesenterialgefässe. Sprengel.
69 Study of Mechanism of Weight Deformities. G. Perthes.—Ueber den künstlich missgestalteten Fuss der Chinesin im Hinblick auf die Entstehung der Belastungsdeformitäten.
70 Favorable Influence of Passive Congestion on Formation of Bone Callus. A. Bum.—Die Entwickelung des Knochencallus unter dem Einfluss der Stauung.
71 *Course of Gastric Carcinoma with and without Operation. Krönlein.—Ueber den Verlauf des Magencarcinoms bei op. und bei nicht-op. Behandlung.
72 First Dressing on the Field. Von Bruns.—Der erste Verband auf dem Schlachtfeld.
73 Ueber aseptische und antiseptische Pasten und Salbenverbände. Honsell.
74 Ueber acute, nicht eitrige Thyreoiditis. F. de Quervain.
75 Traumatic Intramuscular Bone Formation. O. Vulpius.—Zur Kenntniss der intramuskularen Knochenbildung nach Trauma.
76 Ueber einige Complicationen und Schwierigkeiten bei der Excision des Processus verm. im Ruhestadium der Appendicitis. Roux.
77 Isolirte Paralyse des Musculus quadratus menti durch Verletzung der Anastomosis collo-mandibularis. M. Jaffe.

Berliner Klin. Wochenschrift, May 26 to July 7.

78 (No. 21.) Ueber den Mechanismus der Amboceptorenwirkung. P. Ehrlich und H. Sachs.
79 Tube-Shaped Field of Vision in Hysteria. R. Greeff.—Ueber das "röhrenförmiges" Gesichtsfeld bei Hysterie.
80 Ueber eine neue Reaction auf einige reducirende Substanzen des Organismus. G. Gabritschewsky (Moscow).
81 (No. 22.) Successful Protective Inoculation of Cattle Against Anthrax. G. Sobernheim (Halle).—Ueber ein neues Verfahren der Schützimpfung gegen Milzbrand.
82 The "Splashing Sound." H. Elsner (Berlin).—Noch einmal das Plätschergeräusch.
83 Treatment of Heart Disease by Kreuznach Baths. E. Boehr.—Ueber die Behandlung Herzkranker mit Kreuznacher Bädern. (Commenced in No. 21.)
84 (No. 23.) Marriage and Venereal Affections. E. Lesser.—Ehe und venerische Krankheiten.
85 The Blood Cleansing Function of the Kidneys. H. Strauss.—Zur Blutreinigenden Function der Nieren.
86 Albuminuria in Pregnancy. J. Veit (Leyden).—Ueber Albuminurie in der Schwangerschaft.
87 Osmotic Analysis of Urine in Infancy. P. Sonnenfeld.—Zur osmotischen Analyse des Säuglingsharns. (Commenced in No. 22.)
88 (No. 24.) Morbid Self-Consciousness. A. Cramer (Göttingen).—Krankhafte Eigenbeziehung und Beachtungswahn.
89 Cure of Six Cases of Cancer with Cancroin. A. Adamkiewicz (Vienna).—Neue Erfolge des Cancroin beim Krebs der Zunge, des Kehlkopfes, der Speiseröhe, des Magens und der Brustdrüse.
90 (No. 25.) Essence of Bacterial Virulence. R. Pfeiffer and E. Friedberger (Königberg).—Ueber das Wesen der Bacterienvirulenz nach Untersuchungen an Cholera vibrionen.
91 Ueber die complementophilen Gruppen der Amboceptoren. P. Ehrlich and H. T. Markhall (Frankfurt a. M.).
92 *Alimentary Glycosuria in Liver Affections. J. Bruining (Leyden).—Zur Frage der alim. Glycosurie bei Leberkranken.
93 (No. 26.) Suprarenal Extract in der Rhino-Laryngologie. A. Rosenberg (Berlin).
94 Ueber das Folliculoma malignum ovarii. S. Gottschalk.
95 Determination of Uric Acid. Belding.—Zur Frage der Harnsäurebestimmung.
96 *New Instrument for Suturing Fistulæ, etc. V. Frommer (Berlin).—Instrument zum Nähen der Fisteln und Wunden in beschränkten Hohlräumen.
97 *Vaginal Removal of Tubal Pregnancy. P. Strassmann.—Die op. Entfernung der Eileiterschwangerschaft von der Scheide her.
98 (No. 27.) Die minimale Narkose bei kleineren chir. Eingriffen. Riedel (Jena).
99 Ueber die Completirbarkeit der Amboceptoren. J. Morgenroth.
100 Ueber Nephrolysine. G. Ascoli. (Commenced in No. 24.)
101 *Unar Paralysis After Typhoid. K. Liepelt (Berlin).—Unarlähmung nach Typhus abd.
102 Ueber die Receptoren der Milcheiweisskörper (Milk Albuminoids). F. Meyer.

Centralblt. f. Chirurgie (Leipsic), July 12 and 19.

103 (No. 28.) Treatment of Prolapsus ani in Children with Paraffin Prothesis. Karewski (Berlin).—Die Behandlung des Prolapsus ani der Kinder mit P.-Injektionen.
104 Continence Secured by Secondary Injection of Paraffin After Total Extirpation of Rectum. O. Wolff.—Wie erzielt man vollkommene Continenz nach totaler Mastdarmexstirpation?
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127 *Intravenous Injection of Oxygen. G. Gaertner.—Ueber intravenöse Sauerstoffinfusionen.

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128 (No. 69.) *Contributo allo studio delle applicazioni terapeutica della gelatina. A. Geraldini.
129 *Chirurgia ed opoterapia epatica nel morbo di Banti. Schiassi.
130 *Le iniezioni ipodermiche di atropina nell' asma. G. Campanella.
131 (No. 72.) *Di nuovo sull' azione malefica dei raggi solare nei mesi primaverili. C. Fermi.
132 (No. 75.) Diabete floridizinico e permeabilita renale. N. Dominicis.
133 Della temperatura iperpiretica nella pneumonite appendicolare. S. Satullo.
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132 Sulla flora batterica del seni nasali e dell'orecchio medio. U. Calamida.
133 *Sulla genesi dell'iperglobulia. V. Colla.
134 Ricerche fisico-chimiche sul sangue normale. C. Fon.
135 *La leucocitosi digitalica nell' infezione pneumonica. A. Borinf.
136 *Lavature medicate dell' organismo nel processi infettivi. Sanfelice.
137 *Contributo alla patogenesi del gozzo esoftalmico. E. Tedeschi.

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138 (No. 28.) Indications for Treatment of Hypertrophied Prostate. T. Rovsing.—Prostatahypertrofiens Behandlung. (Commenced in No. 24.)
139 *Treatment of Cancer by Freezing. C. A. Dethlefsen.—Kraeftens Behandlung ved Frysning.
140 Processes After Extirpation of Lacrimal Sac. K. Lundsgaard.—Atroflerer Taarekirtlen naar Taaresackken exstirperes?

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1. **Tabes Dorsalis.**—Taylor calls attention to some anomalous types of tabes, which he divides into two classes: 1. Those in which symptoms referable to the eye are the chief manifestations of disease. 2. Those characterized by obtrusiveness of various unusual conditions such as gastric crises, joint troubles, perforating ulcer or other trophic changes. Of the first class many are seen in the early stage by ophthalmic surgeons, and in this way Taylor has had opportunity to observe a number. The most common types have either paralysis of some ocular muscle or some optic atrophy. The muscle most frequently affected is the levator palpebrarum and other muscles supplied by the third nerve may be also slightly involved. Unilateral ptosis alone is rare, though a slight definite degree of double ptosis is not uncommon as a symptom. The sixth nerve may also be affected on one side. These palsies are generally of a transient character, clearing up in a few weeks usually under the influence of iodid or mercury. The question whether these cases are truly tabes is noticed, but he believes they are, as he has seen further developments in a

number of cases. The defective vision thus complained of is almost invariably the result of the optic atrophy frequently met with in tabes. No other symptom, not even loss of knee-jerk, may be found, though a few months later the other symptoms of tabes are likely to appear. Still another class is that in which the Argyll-Robertson pupil is the sole sign of really definite importance in the beginning. It is not infrequently said that the appearance of optic atrophy is coincident with the arrest of the progress of the disease, but this statement should be accepted with a certain amount of reserve. A second class of anomalies are those characterized by gastric erises or joint troubles or other trophic disturbances. Many of them have definite lightning pains, pupillary changes, etc., but they may be absent, and others which are called bilious attacks appear. We should not be content with the diagnosis of "bilious attack," but suspect or look for a nervous disease. In another class of cases the larynx is affected. These crises are really choking attacks with severe inspiratory spasm. Tracheotomy may be necessary. There may be some ocular muscular troubles and other bulbar symptoms. He believes in specific remedies in the ocular cases as they might be of value, but when optic atrophy occurs with tabetic disease it is a bad symptom, and almost invariably goes on to complete atrophy and blindness. A number of cases are reported.

4. **Suprarenal Preparations.**—Longworth finds these very powerful heart stimulants and of value in various conditions. Administration by the mouth is not followed by such constant results as when given intravenously or subcutaneously, but in his experience he has found a very decided rise in the blood pressure following the administration of the drug, which readily subsides after its withdrawal. His patients were all suffering from some form of mental disease, and in one maniacal case there was a certain improvement with the increase of the blood-pressure, and in one case of epilepsy the fits were increased in severity and frequency during the administration of the drug, but it is impossible to show what influence the drug exerted. He mentions in conclusion Grave's disease where one case of recovery from this treatment has been reported and in which it might be expected to be of some value.

5. **Functions of the Epiglottis.**—From a study of the anatomy and physiology of the glottis, Renshaw comes to the conclusions: "That the only function performed by the epiglottis during deglutition is to act as a slight lateral protection to the glottis; that the main function of the epiglottis is to prevent the secretions of the upper air passages, etc., from entering the larynx when in a state of rest. By its means these secretions are deflected into the pyriform fossæ, and so find their way into the esophagus. The influence of the epiglottis over phonation is at present undetermined and uncertain."

7. **Nerve Injuries.**—The importance of injuries of nerves is out of proportion to the seriousness of the wound in other respects, as Bowlby remarks. He begins his lecture by describing the bulbous condition found at the end of the proximal portion of the severed nerve, remarking that it contains nerve fibers, while the same forms do not occur on the peripheral portion of the nerve. The proximal portion of the divided nerve gradually shrinks in size and it is probable that it is in proportion to the actual destruction of a certain portion of the other fibers. We must recognize the fact that changes also take place as far up as the spinal cord in cases of amputation, and it is also probable that these occur also in cases of mere nerve sections where years have elapsed and the divided ends have not been joined. In the lower end of the nerve bulbs do not form and degeneration occurs. The question as to regeneration in the peripheral end of the divided nerve is raised. He quotes from his former writings to show that he has held the view that such regeneration does occur, as early as 1887. This, however, is not to any extent as great as it is in the proximal portion of the nerve, and he has no doubt that they both undergo a second atrophy from disuse after a course of time. When the nerve is divided and the two ends are in close apposition new axis cylinders are formed and new nerve tissues which unite the two ends, and this is apt to occur when the ends are a little ways apart, at a distance of one-fourth of an inch or a little more. When they are an inch apart he thinks there is little possibility of re-union. The sensory fibers certainly regenerate in the united nerves to a very marked extent, but he thinks the motor fibers do not undergo anything like the complete regeneration that the sensory fibers do. The muscle changes and electric reaction changes are remarked on, as also the trophic alterations which follow nerve lesions, such as the glossy skin, falling out of the nails and hair and changes in the joints. If the two ends of the nerve are sutured they do not immediately unite. It may possibly cause some diminution in the degeneration of the peripheral end of the fibers, but we can not absolutely prevent it. Sensation may return early, but there is little evidence of the immediate restoration of motion. He believes in the use of fine tendon sutures for uniting the nerve fibers; silk is a foreign body and causes the formation of fibrous tissue. The defects which exist in the united nerves are largely due to mixing up of fibers; corresponding ones do not unite as they were in the uninjured condition. There may be a decided mixing up so that localization of sensation may be affected and the motor fibers still more disordered. There is evidence that the complete restoration of the nerve tissue which would be implied in the term "cure" does not occur.

8. **Phthisis.**—In his third lecture, Bramwell discusses the precautions which the individual should take in order to protect himself, especially if there is any predisposition. These should date from infancy and childhood, during which the best hygienic measures should be adopted, and the condition of the respiratory apparatus be carefully watched and guarded during youth and adult life. The patient should be well fed, well nourished and well clothed, live in healthy surroundings, avoid excesses, or occupations such as are apt to produce lung trouble, pay special attention to the condition of the digestive functions and increase vital resistance in every possible way. Of course, these measures can only be fully carried out by those who are well to do, but they should be followed as far as possible by the poor as well as the rich. Healthy persons living in close contact with tuberculous patients should be scrupulously careful to prevent the introduction of the bacilli into their systems. The phthisical patients should be instructed to avoid kissing and not to swallow their own sputum. Their rooms should be kept scrupulously clean and they should sleep alone. If a phthisical patient should cough into the face of a healthy person, the latter should immediately blow the nose so as to clean out the nostrils, and rinse out the mouth and throat with some disinfecting solution. The enormous decrease in the mortality from better housing and nutrition of the public during the last fifty years, shows their value, and with specially preventive measures are mentioned the sanitary regulation of work-shops, the prohibition of expectoration, etc. The importance of early diagnosis and treatment is also emphasized. Means of testing and reporting on suspected sputum or milk should be provided at public expense, as also should sanitariums for the benefit of incipient cases and hospital accommodations for the use of patients in the more advanced stages. Public conveyances should be looked after. The phthisical should be prevented from spitting in public places and measures should be taken for the destruction of sputum. He believes compulsory notification is essential if effort is made to reduce the disease to its lowest limits. Lastly, he mentions measures which the authorities should take to prevent the tubercle bacilli and its spores being conveyed from the lower animals, especially cattle, to man.

16. **Observations on Plague.**—Terni remarks in regard to the diagnosis which presents considerable difficulty, especially during the initial outbreak. There is often a lack of positive clinical and pathologic features and as a result such diagnoses as lymphatitis, and malarial lymphatitis are made, with serious consequences. In every country in which plague has recently appeared mild cases have been reported, some of which end in spontaneous cure. The differential diagnosis between lymphatitis and bubonic plague is given in some detail. The initial lesions of plague are almost invariably bubonic and

it is only when the disease has lasted some time and the bacilli have acquired a marked degree of virulence that gastro-intestinal, septicemic or pneumonic forms appear. The non-bubonic lymphatitis usually presents the symptoms of phlegmon with lymphatitis, adenitis, septicemia and other symptoms, and bacterially, *Streptococcus pyogenes*, occasionally staphylococci and diplococci are found. These cases generally begin with some slight injury, while plague bubo is not preceded by any previous lesion. The characteristic features of plague are: "1. Fever with lancinating pain and some slight engorgement of a lymphatic gland in the groin, the axilla or the neck. 2. Progressive and rapid tumefaction of the lymphatic gland or glands in these neighborhoods; each gland forms a separate enlargement, and is hard and painful, well defined in outline, movable on the deeper tissues and under the skin, which has no share in the inflammatory process. 3. Grave symptoms of general blood poisoning, out of proportion to the local lesion. 4. In plague buboes no suppuration takes place during the period of infection. Only after the crisis of the illness has passed, and when convalescence obtains, does softening of the glandular swelling take place, and spontaneous necrosis of the skin. As a general rule, however, the glandular enlargement disappears very gradually and without suppuration. In very exceptional cases, owing to the infection of the swelling by germs other than plague bacilli, local symptoms may resemble simple adenitis, but in true plague the glandular swellings are much larger in bulk and in number, and the general symptoms are much more severe. Taking all these facts into consideration, a clinical diagnosis of bubonic plague may be fairly positively arrived at, at any rate with sufficient certainty to justify steps being taken to deal with the case, and with suspects and outcasts, without waiting for further confirmation. In all cases, however, it is necessary to test the initial cases in any outbreak, bacteriologically and microscopically, before pronouncing definitely on the disease." As a rule, cases of plague septicemia and pneumonia appear only after the disease has already existed for a time and the physician's attention is directed to their being plague chiefly by the gravity and severity of the symptoms. Terni thinks that primary plague septicemia does not exist. Septicemia in plague is always preceded by gastro-intestinal catarrh or by a bubo, however small and imperceptible that bubo may be. Septicemic cases of plague are more apt to occur when the initial bubo is situated either on the neck or in the axilla; this is due no doubt to the more immediate continuity of these regions with the deep lymphatics in the thoracic mediastina, facilitating a rapid diffusion. In the gravest cases of septicemic forms with a rapid course and before the appearance of the specific bacilli in the blood, more or less evident tumefaction of some lymphatic gland accompanied by lancinating pain will be found. They can not be called secondary to a general infection, and it is evident in a pathologic and clinical point of view that no distinction can be made between bubonic and septicemic plague. The latter is only an acute stage of the former.

27. **Syphilis of the Bladder.**—Margoulies remarks that possibility of a syphilitic origin for ulceration of the bladder or cystitis should be suggested by the comparatively satisfactory condition of the general health under these circumstances, and likewise when the urine is only slightly modified. In dubious cases, rebellious to ordinary measures, anti-syphilitic treatment should be instituted and the benefit derived will clear up the diagnosis. Endoscopic pictures of two cases personally observed are appended. There was nothing characteristic about the symptoms.

30. **Modifying Injections in Tuberculosis of Epididymis.**—Camphorated naphthol injected six times in amounts varying from a few drops to 1 c.c. proved effective in two cases of this affection observed by Bohdanowicz. The pus was aspirated before each injection.

32. **Intravascular Injections of Antirabic Virus.**—Krasmitaki reports that these injections are not dangerous if made slowly, the virus in a filtered and diluted emulsion at body temperature. The animals in all his tests were rendered much more rapidly refractory to the disease than by any other method of immunization, and the immunity conferred was more "solid." Rabbits thus injected were preserved in many instances from the effects of a subsequent intracranial inoculation of rabies virus, otherwise invariably fatal. These favorable experimental results encouraged Professor Wysokowicz to adopt this method in the clinic for persons who had been severely bitten by animals supposed to be mad, and requiring the promptest possible re-enforcement of their immunity. His experience includes seventy subjects thus treated during the past year by intravenous injections of fixed virus. The results have been very encouraging.

33. **Cultivation of Tetanus Microbes.**—De Band announces that the toxin obtained in aërobic cultures of the tetanus bacillus in symbiosis with the bacillus subtilis is fully as active as that obtained from anaërobic cultures of the former alone. It answers fully as well for the production of antitoxin.

36. **Sequelae of Sympathectomy.**—Jonnesco has supervised eight patients for a length of time ranging from eighty days to six and one-half years after resection of the cervical sympathetic. He finds that certain symptoms following the operation proved transitory, the decrease in the ocular tension, suppression of local perspiration, difficulty in mastication and swallowing, the influence on nutrition and the hyperesthesia. No trophic disturbance was noted in any case, and the physical and mental development of the patient was not affected. The disturbances that persisted were the contraction of the pupil, the drooping of the upper lid and congestion of the conjunctiva, lids and eyeball, gums and brain. These congestive phenomena were still evident three years after the intervention. The sequelæ have thus proved comparatively insignificant in comparison with the benefits that have been derived from cervical sympathectomy in glaucoma, exophthalmic goiter and epilepsy, and the operation can be accepted as harmless.

39. **Medical Suggestion from Weaning of Puppies.**—Lemaistre has noticed that mother dogs feed their puppies with matter which they vomit for the purpose when lactation ceases. The substances vomited must be predigested and form a natural transition diet between milk and solid food. He therefore suggests that it might be possible to utilize peptones derived from herbivora or even carnivora in some such way, when an extremely nourishing, predigested food is needed in the clinic. Gasterin, which is much used in therapeutics abroad, is merely the gastric juice derived from living dogs.

44. **Trunecek's Serum.**—Huchard's experience with forty cases of arteriosclerosis treated with Trunecek's serum has been completely negative.

46. **Apyretic Typhoid Fever.**—In comparison with 28 cases which Lemoine has found in the literature, the personal case described was distinguished by the long duration, the predominance of nausea and vomiting, and by a slight difference between the temperature of the initial attack and of the relapse. Perforation occurred in both. Five of the apyretic cases on record were in children, 5 in youths, 10 in adults, and 4 in elderly subjects out of those in which the age was mentioned.

48. **Necessity for Early and Abundant Serum Therapy.**—Calmette argues that serum therapy is absolutely innocent of the by-effects that have been ascribed to it. Recent research has conclusively demonstrated its entire harmlessness, among others that of Denys of Louvain, published in the *Presse Méd. Belge* of April 27, which showed that one to nineteen parts of human blood mixed with one part of horse serum showed no signs of the dissolving of red corpuscles when kept at 20 C. for twenty-four hours, or at 37 C. for three days. Even forty-nine parts of horse serum to one part of blood caused no change in the corpuscles. People die notwithstanding serum treatment, when the microbian toxins have fastened on the tissues before the antitoxic serum is used. Hence the imperative necessity for early resort to it. They die also when the diphtheritic intoxication has paralyzed the centers which preside over the production of the polynuclear leucocytes that play such an important part in the defense of the organism against microbian

invasion. Hence the necessity for large doses of the antitoxic serum.

50. **Treatment of Abdominal Injury from Horse's Kick.**—Cahier reviews seventy-five cases and describes the processes and indications. He proclaims that a person who has been kicked in the right abdomen should be left where he has fallen and not moved until the physician arrives. He should not be lifted up, nor undressed, nor rubbed. After the physician arrives he should be lifted horizontally with great care, always retaining the horizontal position, and be carried by hand to the hospital. The jolting of any vehicle or car may prove disastrous. If the subject retains his consciousness and does not suffer much, the physician should restrict his intervention to injection of 1 cg. of morphin, but should make minute inquiries in regard to the particulars of the traumatism, the position of the horse, the distance, the direction of the kick, etc., whether the subject was standing or leaning against a support, if he was able to foresee the blow, so that the abdomen was in a condition of defense at the moment, which attenuates the violence of the deep contusion, if he was fasting or had just eaten, etc. If he complains of more or less intense pain in the region and has vomiting, etc., the morphin can be injected but nothing whatever must be given him to drink. If he is unconscious or in shock the head should be lowered and he should be warmly covered. The morphin should be substituted by injections of ether, caffein or spartein, with injections of serum on arrival at the hospital. It is advisable to draw the urine as soon as the patient is in bed. Catheterizing again after a few hours will reveal oliguria or anuria, which it is impossible to determine if the urine is not drawn until several hours after the traumatism. The idea that morphin may mask the symptoms is unfounded as the diagnosis is based on the temperature and pulse, the induced deep pain, the muscular contraction and, possibly, on examination of the blood. A simple but violent contusion of the abdomen always caused in his experience a polynuclear hyperleucocytosis, accompanied by eosinophilia when the kidney was injured. The morphin renders conditions much more favorable for a laparotomy in case it becomes necessary. In one case described the intervention, sixteen hours after the accident, was limited to suturing the perforations in the intestines. The patient was kept under observation for months, but no evidences of a stricture could be detected. The peritoneal cavity was not irrigated, but two large tubes were left in the incision in the iliac fossa, made to remove the fecal matters that had escaped from the two perforations in the small intestine. They were discovered through the exploratory median incision from pubis to umbilicus. He tabulates the details of sixty-nine besides the six personal cases reported. The right flank was kicked and the intestines were perforated, ruptured or torn in 24; left flank in 12; umbilical region in 15; between pubis and umbilicus in 11, and in the epigastrium in 7. The figures demonstrate the greater severity of the traumatism when the right flank or iliac fossa is the site of the traumatism. The intestines are caught between the hoof and the spine.

51. **Internal Cholerrhagia After Rupture of Echinococcus Cyst in the Liver.**—In 7 of the 15 cases of "hydatid cholesperitoneum" described, the rupture of the cyst in the liver occurred spontaneously, in 4 after exertion and in 1 after a traumatism. There is nothing characteristic about the symptoms, but an exploratory puncture will usually clear up the diagnosis. Treatment by aspirating puncture alone succeeded in arresting the outpour of bile in 4 cases, but on the other hand it was ineffectual in 4 others, including one fatal case. Eight were treated and 7 cured by laparotomy, with one death. The incision should be on the median line and extensive. The pelvis should also be evacuated, and the entire surface of the liver carefully inspected. Even after the patient has recovered the surgeon should for several years be on the lookout for secondary cysts in the abdomino-pelvic cavity, with careful and repeated rectal or vaginal palpation. Vegas and Cranwell have recently published a report of 125 cases of cysts of the liver observed at Buenos Ayres. Recovery was complete in 86; 7 patients died, and in 32 suppuration rendered secondary marsupialization necessary. They advocate this procedure as preferable to suture without drainage which is liable to be followed by numerous accidents. Dévé advises drainage of a pocket menaced by biliary infection through a second incision if necessary.

66. **Limits of Successful Nephrectomy and Diagnosis of Nephritis by Freezing Point of Blood.**—Kümmell has made a study of the freezing-point of the blood in 265 persons, including 137 subjects with normal renal function. If the freezing-point remains within normal limits—.55 to .57—in a case of unilateral nephritis, the kidney can be removed without apprehension. In 40 such cases recovery was uneventful and the renal function undisturbed, while every case in which the freezing-point was .59 exhibited a sluggish renal function afterward and albuminuria. These facts are further established by the results in the cases in which the freezing-point was .58 to .81. The assumed renal insufficiency was confirmed in every instance by the autopsy or operation. Nephrectomy is still possible at .58 and, with extreme caution, at .59, but .60 is the extreme limit of permissible nephrectomy.

71. **The Balance Sheet for Gastric Carcinoma with and without Operation.**—Krönlein reviews 209 cases of cancer of the stomach in his experience. Only 146 were operated on and only 22 of the entire number are still living. Gastroenterostomy had been performed on 9 of these survivors and gastrectomy on 13, the operation dating from one to eight years. Unoperated patients die in twelve months after the known commencement of the affection on an average. Gastroenterostomy postpones death for an average of three months, and gastrectomy for an average of fourteen months. The patients were on an average in the ninth month of their affection when first seen. The operation always restores them to renewed life and hope, and there is always a chance that there may be no recurrence. The lack of an early diagnosis is not so frequently the cause of this delay before applying for surgical relief, he thinks, as the careless neglect of the warning of the early symptoms.

92. **Diagnostic Value of Glycosuria in Liver Affections.**—Bruining reports 21 cases of various liver affections which he tested for alimentary glycosuria. His experience fully confirmed the assertions of Strauss that the intolerance of levulose by persons with diseased livers is an early and reliable sign of their condition. Bruining administered 100 gm. of glucose or levulose or 150 gm. of saccharose in the morning on an empty stomach, and examined the urine for ten hours afterward with every possible test. Out of 11 cases of cirrhosis of the liver, levulosuria was pronounced in 10, while in 15 cases in which dextrose was given, the result was negative in all but 2. In 15 cases saccharose was administered and dextrose was eliminated in 13. He also noted the suggestive fact that a patient with cancer of the liver, another with incipient cirrhosis and one with catarrhal icterus failed to exhibit levulosuria after ingestion of levulose or glycosuria after glucose, while glycosuria promptly followed ingestion of saccharose in each case. It may be possible, therefore, by varying the kind of sugar to determine the nature of the process in the liver, and alimentary glycosuria thus be found useful not only as a diagnostic but as a differentiating measure.

96. **New Instrument for Suturing Fistulae and Deep, Narrow Wounds.**—The instrument closed is apparently merely a straight sound, and it is thus inserted in the fistula. By turning a screw in the handle a fine, short needle parallel with the sound but with its point facing backward, springs forth out of the upper end of the sound. The instrument is then drawn partially out of the fistula, by which means the tip of the needle is brought through the tissues of the edge of the fistula to the outside. The thread is then inserted in the needle, and as the instrument is pushed back into the fistula the thread is carried down through the tissues in the needle. The upper part of the instrument is then turned partly around, the amount of the turn being graduated by an index in the handle. A second and other stitches are then taken in the same way. Frommer states that the deepest fistula can thus be sutured and as many stitches taken as desired, with the interspaces of the desired regular width. The field of operation is not ob-

secured and the stitch holes are very small. There is no traction on the edges of the fistula or wound and the entire intervention can be completed in a few moments.

97. **Vaginal Operation for Tubal Pregnancy.**—Strassmann insists that every commencing pregnancy with disturbances of any kind should be investigated for ectopic gestation in its early stages. Whenever a young pregnant woman complains of pains in the side this possibility should be suggested. She should be warned to send for the doctor at once in case of pains or fainting. Every delay in the menses, every irregular discharge indicates examination for a possible tubal pregnancy. An ovarian hematoma or enlarged corpus luteum may accompany a normal pregnancy, but the physician should be on the alert. Tubal pregnancy always causes some disturbances during the first months. Vaginal extirpation of the tube at this time is a certain cure and is less dangerous than expectant treatment. It provides the natural outlet for the product of conception and respects the sound organs. He has had nine cases treated on this principle, which he commends in high terms.

101. **Post-Typhoid Ulnar Paralysis.**—Liepelt has observed one case and collected 16. Three recovered; 3 were improved and 3 were stationary out of those followed to date.

106. **Non-Interference with the Femoral Vein Till Close of Exarticulation.**—Riedel recommends his practice of refraining from ligating or severing the femoral vein till the last step of the operation in performing an exarticulation according to Rose. He has found that after the femoral artery is ligated the blood already in the femoral vein is aspirated toward the heart, so that if the vein is not severed until the close of the intervention, only a few drops escape instead of the large amount lost when this is done early in the operation. The patients that require such an operation need all their blood, and there is much less danger of collapse when this large quantity is saved to them. He describes his modification of Rose's technic of exarticulatio femoris.

107. **Early Diagnosis of Carcinoma of the Stomach.**—Gluzinski has been very successful in the early differentiation of malignant disease of the stomach. He tests the organ three times on one day, first the fasting stomach, then forty-five minutes after a test breakfast of white of egg, and again four hours after a test dinner of beefsteak. He repeats these tests two or three times after an interval of several days. Every pure round ulcer in the pars pylorica, he states, is accompanied by an acid catarrh, and all the tests show a constant and pronounced reaction of free hydrochloric acid. The absence of free hydrochloric acid or merely traces of it, at any one of the above tests, even if present at some other test on the same day, is a sign of a mucous catarrh. This under the circumstances, associated with the persistence of the symptoms, is an extremely important sign of incipient carcinoma. He describes four typical cases to corroborate these statements. Achylia gastrica is the next stage, while lactic acid does not appear until at a still more advanced period of malignant disease, too late to be of use for successful surgical intervention.

108. **Sensibility in Abdominal Cavity.**—Lennander has been proclaiming for some time that the organs innervated solely by the sympathetic have no sensibility and consequently no anesthetic is necessary in operating on them. The parietal peritoneum is extremely sensitive, but the mesentery, stomach, anterior margin of liver, gall-bladder and renal parenchyma are insensible to all operative maneuvers, even including the application of the thermocautery. He has been studying the subject extensively with an assistant whose sole duty was to watch the patient's expression and gestures as the various viscera, etc., were manipulated without anesthesia during operations. On the ground of these observations he now performs major abdominal operations with merely infiltration anesthesia of the skin and abdominal wall after an injection of morphin, supplemented by very slight general ether or chloroform narcosis, operating as far as possible during the "primal" ether narcosis. As soon as the parietal peritoneum is finished with he continues without further anesthetics, resuming the ether or chloroform again when the compresses are to be removed, intestines replaced and walls sutured. He prefers the freezing mixture anesthil to infiltration, and now uses it exclusively for the local anesthesia. It is a mixture of ethyl and methyl chlorid. He states that he operates on inguinal hernia according to Cushing. The patients experience slight pain during the intervention, but they bear it readily in preference to general anesthesia.

114. **Gelatin and Tetanus.**—Levy reports that in all his tests in regard to the sterilization of gelatin, most of the tetanus germs and spores were killed in a few minutes, but that a few invariably proved more resistant and survived for half an hour. It is therefore necessary to keep the gelatin at 40 C. for fully forty minutes to ensure absolute sterility. He also found that when a dish of gelatin was placed in the autoclave the center of the mass did not necessarily become hot until fifteen minutes after the outer portions were boiling. The time of sterilizing must therefore be counted from the commencement of the boiling of the center of the mass, and not before. For this reason he prefers to sterilize the gelatin in a number of small test tubes rather than in a single large vessel. The steam must be able to circulate freely between the tubes.

116. **Absorption by the Peritoneum.**—Klapp's researches prove that the absorption of soluble substances in the peritoneum occurs principally by way of the circulation. Also that it is possible to influence and promote this absorption by application of external measures. They affect the circulation of the blood even in the deepest regions, and anything which affects the conditions of the circulation of the blood in these parts affects also the absorption by the peritoneum.

121. **Production of Diphtheria Antitoxin Free from Albumin.**—Proscher makes the important announcement that he has perfected a technic for the production of diphtheria and other serums for the treatment of infectious diseases without a trace of albumin to be discovered by the most sensitive tests. He thinks it probable that the antitoxins are a new class of bodies of whose chemical and physical properties we are still entirely ignorant. Further research will determine whether these bodies are in a pure state or whether there is an admixture of still other indifferent colloid bodies.

124. **Physiologic Function of Tumors.**—Albrecht presents arguments to sustain his theory that certain cells in an organ may from some congenital or other cause be physically unable to perform their allotted specific task, as for instance, the production of bile in liver cells. Then their other properties, and especially their function as reservoirs for the blood or lymph, become exaggerated by a sort of compensating hypertrophy and a tumor-like formation is the result in time. The so-called circumscribed nodular hyperplasia of the liver is a case in point, and possibly many lipomata, nevi, angiomata, multiple lymphomata of the spleen, myelomata, etc., may originate in some defect in the construction of the cells at a certain point, either in the lymph or blood vessels, in the relations between the cells of stroma and parenchyma or in the secretory and excretory functions. He suggests the term "hamartoma" for this group of tumors, from the Greek hamartia, a defect, while he calls the tumor originating in aberrant cells a "choristoma," and the third group, the tumors with a tendency to progressive neoformation, "blastomata."

127. **Intravenous Infusion of Oxygen in the Clinic.**—Gaertner supplements his previous communication, reviewed in THE JOURNAL of July 26, p. 226, by practical suggestions for the clinic. He points out that in the few previous attempts to introduce oxygen into the circulation the gas had been injected in a single large dose into the portal vein. The results were directly opposite to those obtained by Gaertner with slow gradual infusion. The experimentors concluded that oxygen was as directly fatal as air when introduced into the circulation, but Gaertner explains that air is a foreign body while oxygen in reasonable proportions is a normal constituent of the blood and is therefore tolerated without reaction. He calculates that the presence of the oxygen in the veins does not impose an increase of more than 2 per cent. of its normal task on the heart, at the utmost, as the gas is taken up so

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rapidly in the blood. For these and other reasons, which he explains, he recommends this method for the treatment of certain clinical exigencies which require the prompt, life-saving assistance of additional oxygen for a short time, as in case of a foreign body in the air passages, membranous croup, extensive pneumonia, etc., in diseases accompanied by minimal intake of oxygen or excessive outgo, and in intoxication with illuminating or other gas. It is possible, however, that its principal use will be in combating asphyxia neonatorum. It would be a simple matter to infuse oxygen through the umbilical vein after the failure of other measures. The indications here are for the rapid arterialization of the blood, and the conditions in such cases are peculiarly favorable as the oxygen would be absorbed in larger proportions on account of its passage through the liver by this route. Sudden spontaneous stoppage of the flow of oxygen is usually due to kinking or torsion of the vein, and the oxygen should be suspended at once until this is corrected. Extreme foresight is also necessary in making the infusion in case of congestion in the lesser circulation with acute dilatation of the right heart. In any event, slow, gradual infusion of a small amount of oxygen is both practicable and absolutely harmless.

128. **Gelatin in Dysentery.**—Geraldini reports five cases of severe hemorrhagic dysentery controlled by the subcutaneous or rectal injection of gelatin. It was also found effective in simple ulcerative enterocolitis.

129. **Cure of Advanced Case of Banti's Disease.**—Schiassi reported and exhibited at a recent meeting of the Bologna Medical Society a woman completely cured after having been a year before in the third or final stage of Banti's disease, that is, primary splenomegalia with anemia, ascites and lesions of the liver. He considered the removal of the spleen inadvisable on account of the advanced stage of the disease, and restricted his intervention to laparotomy and fixation of a large expanse of the surface of the spleen to the parietal peritoneum. This cured the transudation into the peritoneum, but the anemia persisted and the patient was given 12 to 15 gm. of fresh bone marrow from the epiphyses and 1 to 3 gm. of hepatic extract. Improvement was rapid and permanent, and in three months the reds numbered 4,200,000 to 3,800,000 whites. After the liver had been relieved of its hyperemia by the operation diverting the circulation, the still intact liver cells were able to respond with hyperfunction to the stimulus of the liver extract. He is aware of only two other cases of Banti's disease that recovered after reaching this advanced stage. He thinks that this comparatively slight operation, followed by appropriate organic therapy, opens a new era in the treatment of this disease.

130. **Subcutaneous Injection of Atropin in Asthma.**—Campanella does not wait for further experience, but reports at once the almost immediate relief in two severe cases of rebellious asthma, from subcutaneous injection of .0002 gm. of atropin sulphate, repeated a few times as indicated. The atropin caused symptoms of slight intoxication, but these diminished when the patients were limited to a vegetable diet.

131. **Maleficent Action of the Sun's Rays in the Spring.**—Fermi brings a long list of testimonials to the effect that the direct action of the sun in the spring causes vasomotor symptoms, headache, sneezing, oppression, etc. He found that 83 per cent. of 41 individuals examined experienced these symptoms on exposure to the sun during March and April.

133. **Cause of High Blood Count.**—Colla proclaims that any cause whatever which reduces the pressure and therefore the velocity of the blood, entails the accumulation of the blood corpuscles at the periphery. This explains the hyperglobulia noted in heart disease, in local asphyxia, etc., and, by reverse action, the hypoglobulia that follows lumbar puncture.

135. **Digitalic Leucocytosis in Pneumonia.**—Borini confirms by experimental research the fact that digitalis induces intense leucocytosis in pneumonia.

136. **Medicated Lavage of the Organism.**—Sanquirico's previous announcement in regard to the possibility of intravenous lavage of the organism with an antiseptic solution was mentioned in THE JOURNAL, xxxviii, p. 1701. His present communication reports that of all the substances tested, thymol alone proved effective while it has the advantage of being comparatively harmless. He believes that the positive results attained in his experiments with thymol are the first sure steps in this untried path and hence deserve attention.

137. **Pathogenesis of Exophthalmic Goiter.**—Tedeschi reports that in dogs and rabbits injury of the restiform body, especially of the anterior portion, produced the classic symptoms of exophthalmic goiter. There must therefore be some bulbar center which presides over the Basedow syndrome. He also found that hyperfunction on the part of the thyroid gland favored the development of the syndrome while hypofunction checked or prevented it.

139. **Treatment of Cancer by Deep Freezing.**—Dethlefsen about two years ago published a communication in regard to the possibility of curing lupus by freezing the tissues. In consequence the town of Holstebro where he lives was overwhelmed with lupus victims who flocked there after failure of other measures. For this reason he has been and is still very guarded in his communications on the subject of the treatment of other affections by this method. But Howitz has proclaimed that cancer can be cured by freezing, as mentioned in THE JOURNAL at the time, and Dethlefsen now publishes the history of the first case of cancer in which he applied it and dismissed the patient in July, 1900. The neoplasm was a myosarcoma in the adductors of the thigh. He inserted the tip of a dressing forceps into the center of the tumor, after cocain, down to sound tissue, and then opened the blades of the forceps and sprayed with ethyl chlorid in the cavity thus formed. The pressure of the forceps expels the blood from the parts and facilitates the freezing. This procedure was repeated at various points in the tumor and the deep freezing was repeated every third day for six times in all. Suppuration with laudable pus and healthy granulations followed, and the tumor gradually healed. Superficial freezings were continued every third day, and the patient was dismissed, clinically cured, forty-nine days after commencement of the treatment. He returned in January with metastases, both local and elsewhere, to which he succumbed in May. Dethlefsen regrets that he did not continue the deep freezings longer. [Howitz has recently reported 32 cases of cancer clinically cured by freezing with anesthil.—ED.]

Books Received.

Acknowledgment of all books received will be made in this column, and this will be deemed by us a full equivalent to those sending them. A selection from these volumes will be made for review, as dictated by their merits, or in the interests of our readers.

THE PRACTICAL MEDICINE SERIES OF YEAR-BOOKS, Comprising Ten Volumes on the Year's Progress in Medicine and Surgery. Issued Monthly, Under the General Editorial Charge of Gustavus P. Head, M.D., Professor of Laryngology and Rhinology, Chicago Post-Graduate Medical School. Volume VII. Materia Medica and Therapeutics: Preventive Medicine; Climatology; Forensic Medicine. June, 1902. Cloth. Pp. 270. Price, $1.50. Chicago: The Year-Book Publishers. 1902.

A TREATISE ON DISEASES OF THE SKIN. For the Use of Advanced Students and Practitioners. By Henry W. Stelwagon, M.D., Ph.D., Clinical Professor of Dermatology, Jefferson Medical College and Woman's Medical College, Philadelphia. Handsome Octavo of 1125 Pages, with 220 Text-Illustrations, and 26 Full-page Lithographic and Half-tone Plates. Cloth. Price, $6.00 net. Philadelphia and London: W. B. Saunders & Co. 1902.

ATLAS AND EPITOME OF ABDOMINAL HERNIAS. By Privatdocent Dr. Georg Sultan, of Göttingen. Edited, with Additions, by William B. Coley, M.D., Clinical Lecturer on Surgery, Columbia University (College of Physicians and Surgeons). With 119 Illustrations, 36 of Them in Colors, and 277 Pages of Text. Cloth. Price, $3.00 net. Philadelphia and London: W. B. Saunders & Co. 1902.

THE COMPOSITE MAN AS COMPREHENDED IN FOURTEEN ANATOMICAL IMPERSONATIONS. By E. H. Pratt, A.M., M.D., LL.D. Cloth. Pp. 233. Price, $1.50. Chicago: The New Age Publishing House. 1902.

MOTHER AND CHILD. By Edward P. Davis, A.M., M.D., Professor of Obstetrics in the Jefferson Medical College. Cloth. Pp. 264. Price, $1.50. Philadelphia: J. B. Lippincott Co. 1902.

TWELFTH ANNUAL REPORT OF THE EYE, EAR, NOSE AND THROAT HOSPITAL, New Orleans, La. Jan. 1. to Dec. 31, 1901. Paper. Pp. 50. New Orleans: L. Graham Co., Ltd. 1902.

HEMOGLOBIN SCALA. T. W. Tallquist. Price, $1.50. Helsingfors: Wentzel Hagelstam's Förlag. Edward Pennock, Sole American Agent, 3609 Woodland Ave., Philadelphia.

VON DER NERVENZELLE und der Zelle im Allgemeinen. Von Paul Kronthal. Paper. Pp. 274. Jena: Verlag von Gustav Fischer. 1902.

ANNUAL REPORT OF THE BOARD OF HEALTH OF THE CITY OF DAVENPORT, IOWA, for the Year Ending Feb. 28, 1902. Paper. Pp. 189.

JOHNS HOPKINS HOSPITAL REPORTS. Volume X. Paper. Pp. 322. Baltimore: The Johns Hopkins Press. 1902.

The Public Service.

Navy Changes.

Changes in the Medical Corps of the Navy for the week ending July 26, 1902.

P. A. Surgeon E. M. Shipp, detached from the *Celtic* and ordered to Port Isabella, P. I.

P. A. Surgeon J. A. Guthrie, detached from Port Isabella and ordered home via the *Solace*.

Asst.-Surgeon L. W. Bishop, detached from the Naval Brigade and ordered to the *Celtic*.

A. A. Surgeons M. W. Baker, J. H. Halloway, W. C. Rucker, commissioned acting assistant-surgeons from July 10, 1902.

Surgeon A. C. H. Russell, detached from duty as member and recorder of the board of medical examiners, Naval Laboratory, N. Y., August 25, and ordered to the Naval Museum of Hygiene and Medical School, Washington, D. C., for duty as a member and recorder of the board of medical examiners.

Surgeon E. R. Stitt, detached from the *Hartford* and ordered home and to wait orders.

Surgeon C. T. Hibbett, ordered to the *Franklin* August 1.

P. A. Surgeon A. R. Alfred, detached from the *Monadnock* and ordered to the *Solace*.

Asst.-Surgeon W. Seaman, detached from the Naval Hospital, Yokohama, Japan, and ordered to the *Monadnock*.

Asst.-Surgeon W. E. Griffin, detached from the Naval Hospital, Yokohama, Japan, and ordered to duty at Olongapo, P. I.

A. A. Surgeon J. H. Halloway, ordered to the Naval Hospital, Boston, Mass.

A. A. Surgeon M. W. Baker, ordered to the Naval Hospital, Norfolk, Va.

Marine-Hospital Changes.

Official list of the changes of station and duties of commissioned and non-commissioned officers of the Public Health and Marine-Hospital Service for the fourteen days ended July 24, 1902:

Surgeon H. W. Sawtelle, relieved from duty at Chicago, and directed to proceed to Purveying Depot, New York City, assuming command and relieving Surgeon C. E. Banks.

Surgeon H. W. Austin, upon being relieved at Philadelphia, Pa., by Surgeon Fairfax Irwin, to proceed to Detroit, Mich., and assume command of the service, relieving P. A. Surgeon E. K. Sprague.

Surgeon Fairfax Irwin, upon being relieved at Boston, Mass., by Surgeon R. M. Woodward, to proceed to Philadelphia, Pa., assuming command of the service and relieving Surgeon H. W. Austin.

Surgeon H. B. Carter, granted leave of absence for one month and fifteen days from July 14.

Surgeon C. E. Banks, upon being relieved at the Purveying Depot, New York City, by Surgeon H. W. Sawtelle, to proceed to Chicago and assume command of the service.

Surgeon W. J. Pettus, upon being relieved at Cleveland, Ohio, by Passed Assistant Surgeon J. B. Greene, to proceed to Washington, D. C., and report at Bureau for duty in the Division of Insular and Foreign Quarantine.

Asst.-Surgeon General R. M. Woodward, relieved from duty in the Bureau, Washington, D. C., effective July 26, 1902, and directed to proceed to Boston, Mass., and assume command of the service, relieving Surgeon Fairfax Irwin.

P. A. Surgeon Wertenbaker, two days' leave from July 15, 1902, under paragraph 173 of the regulations.

P. A. Surgeon M. J. Rosenau, detailed as a delegate at the meeting of the International Sanitary Conference to be held in Washington, D. C., Oct. 15, 1902.

P. A. Surgeon J. A. Nydegger, granted one day's extension of leave of absence, July 10.

P. A. Surgeon E. K. Sprague, upon being relieved at Detroit, Mich., by Surgeon H. W. Austin, to proceed to Fort Stanton, N. M., and report to medical officer in command for duty and assignment to quarters.

P. A. Surgeon H. W. Wickes, granted leave of absence for one month from August 11.

P. A. Surgeon J. B. Greene, to proceed to Cleveland, Ohio, and assume temporary command of the service, relieving Surgeon W. J. Pettus.

Asst.-Surgeon H. C. Russell, relieved from duty at Boston, Mass., and directed to proceed to Stapleton, N. M., and report to medical officer in command for duty and assignment to quarters.

Asst.-Surgeon W. Stoner, detailed as inspector of unserviceable property at the Purveying Depot, New York City.

Surgeon and Medical Purveyor C. E. Banks, granted leave of absence for four days from July 21 or 22.

Surgeon C. T. Peckham, granted leave of absence for two days from July 10, 1902, under paragraph 181 of the regulations.

Asst.-Surgeon V. G. Heiser, Bureau order of July 17, 1902, relieving Asst.-Surgeon Heiser from duty at Quebec, Canada, and directing him to proceed to Manila, P. I., for duty, amended so that he shall report at Washington, D. C., en route to Manila.

Asst.-Surgeon W. W. King, granted leave of absence for eighteen days from July 17.

Asst.-Surgeon A. J. McLaughlin, to proceed to Ocean City, Chincoteague and Watchapreague, Md., for the purpose of making physical examinations of keepers and surfmen of the Life Saving Service.

Asst.-Surgeon J. T. Burkhalter, relieved from duty at the Gulf Quarantine Station, and directed to proceed to the Brunswick Quarantine Station, assuming command.

Asst.-Surgeon G. W. McCoy, upon being relieved from duty at San Francisco by A. A. Surgeon W. C. Rucker, to proceed to Manila, P. I., and report to the chief quarantine officer for assignment to duty.

A. A. Surgeon Spalding Kenan, granted leave of absence for four days from July 22.

Asst.-Surgeon V. G. Heiser, upon being relieved at Quebec, Canada, by Asst.-Surgeon W. C. Billings, to proceed to Manila, P. I., and report to the chief quarantine officer for duty.

Asst.-Surgeon W. C. Billings, relieved from duty at the Immigration Depot, New York, and directed to proceed to Quebec, Canada, relieving Asst.-Surgeon V. G. Heiser, and reporting to the Commissioner of Immigration for duty under his direction.

Asst.-Surgeon Edward Francis, to proceed to Point Pleasant, N. J., for the physical examination of crews of the Life Saving Service.

Asst.-Surgeon B. S. Warren, to proceed to Atlantic City, N. J., for the physical examination of crews of the Life Saving Service.

A. A. Surgeon W. R. Hicks, granted leave of absence for five days from July 14.

A. A. Surgeon J. W. Stevenson, granted leave of absence for twenty-one days from July 18.

Senior Pharmacist E. S. Maguire, granted leave of absence for thirty days from June 7.

Senior Pharmacist S. W. Richardson, relieved from temporary duty at Washington, D. C., and directed to rejoin his station at St. Louis, Mo., relieving Junior Pharmacist C. W. Stephenson.

Senior Pharmacist Edwards Rogers, granted leave of absence for twenty-eight days from July 12.

Senior Pharmacist F. A. Southard, granted fifteen days' extension of leave of absence from July 22.

Junior Pharmacist C. W. Stephenson, upon being relieved from duty by Senior Pharmacist S. W. Richardson, to proceed to Louisville, Ky., and report to medical officer in command for duty and assignment to quarters.

BOARD CONVENED.

Board convened to meet at Baltimore, Md., July 17, 1902, for the physical examination of an officer of the Revenue Cutter Service. Detail for the board: Assistant Surgeon-General L. L. Williams, chairman; P. A. Surgeon J. A. Nydegger, recorder.

RESIGNATION.

Junior Pharmacist W. C. Phillips resigned, to take effect July 26, 1902.

Health Reports.

The following cases of smallpox, yellow fever, cholera and plague have been reported to the Surgeon-General, Public Health and Marine-Hospital Service, during the week ended July 26, 1902:

SMALLPOX—UNITED STATES.

California: Sacramento, July 5-12, 3 cases.
Illinois: Belleville, July 12-19, 4 cases; Chicago, July 12-19, 5 cases; Joliet, July 1-15, 15 cases.
Indiana: Indianapolis, July 5-12, 12 cases.
Kentucky: Covington, July 12-19, 11 cases.
Massachusetts: July 12-19, Boston, 8 cases; Cambridge, 7 cases, 2 deaths; Everett, 3 cases, 1 death; Lowell, 3 cases; Medford, 1 case; Newton, 2 cases; Somerville, 13 cases, 1 death.
Missouri: St. Louis, July 13-20, 11 cases.
Nebraska: Omaha, July 12-19, 3 cases.
New Hampshire: Nashua, July 12-19, 2 cases.
New Jersey: Hudson County, Jersey City included, July 13-20, 3 cases, 2 deaths; Newark, July 12-19, 7 cases, 2 deaths.
New York: New York, July 12-19, 12 cases, 3 deaths.
Ohio: Cincinnati, July 11-18, 4 cases; Cleveland, July 12-19, 32 cases, 6 deaths; Dayton, July 12-19, 3 cases; Hamilton, July 12-19, 2 cases.
Pennsylvania: Erie, July 12-19, 2 cases; Johnstown, July 5-19, 14 cases, 1 death; McKeesport, July 5-12, 4 cases; Philadelphia, July 12-19, 13 cases, 3 deaths; Pittsburg, July 12-19, 10 cases, 2 deaths.
Rhode Island: Providence, July 12-19, 3 cases.
Washington: Tacoma, July 7-14, 1 case.
Wisconsin: Green Bay, July 13-20, 3 cases; Milwaukee, July 12-19, 2 cases.

SMALLPOX—FOREIGN.

Austria: Prague, June 28-July 5, 3 cases.
Belgium: Antwerp, June 21-July 5, 1 case, 4 deaths.
Canada: St. John, July 12-19, 1 case.
China: Hongkong, May 24-June 14, 1 case, 1 death.
Colombia: Panama, July 7-14, 4 cases.
France: Marseilles, June 1-30, 6 deaths; Paris, June 21-28, 1 death.
Great Britain: Glasgow, July 4-11, 2 cases; London, June 28-July 5, 58 cases, 13 deaths.
Greece: Athens, June 28-July 5, 1 case.
India: Calcutta, June 14-21, 1 death; Karachi, June 15-22, 3 cases, 2 deaths; Madras, June 14-20, 1 death.
Italy: Palermo, June 21-July 5, 18 cases, 4 deaths.
Mexico: Vera Cruz, July 5-12, 1 case, 1 death.
Russia: Moscow, June 21-28, 10 cases, 4 deaths; Odessa, June 28-July 5, 4 cases; St. Petersburg, June 21-28, 10 cases, 1 death.
Spain: Corunna, June 28-July 5, 1 death.

YELLOW FEVER.

Colombia: Panama, July 7-14, 3 cases, 1 death.
Costa Rica: Port Limon, July 3-10, 1 death.
Mexico: Aivarado, July 7, epidemic; Cordoba, July 7, present; Vera Cruz, July 5-12, 22 cases, 9 deaths.

PLAGUE.

China: Hongkong, May 24-June 14, 104 cases, 101 deaths.
India: Calcutta, June 14-21, 56 deaths; Karachi, June 15-22, 20 cases, 16 deaths.

CHOLERA—FOREIGN AND INSULAR.

Philippine Islands: Manila, May 25-June 7, 132 cases, 118 deaths; Provinces, May 25-June 7, 1018 cases, 729 deaths.
China: Hongkong, May 24-June 14, 53 cases, 49 deaths.
India: Calcutta, June 14-21, 31 deaths; Karachi, June 15-22, 45 cases, 37 deaths.
Japan: Karatsu, June 22, 41 cases, 21 deaths.

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